Phi Delta KAPPAN

In This Issue

- **WHAT—AND WHERE—IS EDUCATIONAL RESEARCH?**
- **NEEDED: VEEPS IN CHARGE OF HERESY**
- **TWO ARTICLES ON LIFE-ADJUSTMENT EDUCATION**
- **AGREEMENTS ON CURRICULUM**
- **Reviews of *The Nongraded Elementary School* and *The Role of the School in American Society***

FIFTY-FOURTH YEAR

VOLUME XLI
NUMBER 6

March 1960

A JOURNAL FOR THE PROMOTION OF RESEARCH, SERVICE, AND LEADERSHIP IN EDUCATION

Phi Delta KAPPAN

VOLUME XLI • NUMBER 6

Journal of Phi Delta Kappa, Professional Fraternity for Men in Education

For the promotion and improvement of free public education through a continuing interpretation of the ideals of research, service, and leadership

Officers of Phi Delta Kappa

CHARLES R. FOSTER, *President*, School of Education, University of Florida, Gainesville, Fla.

A. G. CLARK, *First Vice-President*, 316 Dalzell Ave., Pittsburgh 2, Pa.

GORDON I. SWANSON, *Second Vice-President*, University Farm, University of Minnesota, St. Paul 1, Minn.

RUSSEL S. MERKEL, *Recording Secretary*, Indiana Central College, Indianapolis 27, Ind.

ARTHUR E. ARNESEN, *Comptroller*, 440 E. First South St., Salt Lake City, Utah.

MAYNARD BEMIS, *Executive Secretary*, Eighth St. and Union Ave., Bloomington, Ind.

Editorial Consultants

SAMUEL M. BROWNELL, Superintendent of Schools, Detroit, Mich.

DAN H. COOPER, Director, Division of Education, Purdue University, Lafayette, Ind.

E. T. MCSWAIN, Dean, School of Education, Northwestern University, Evanston, Ill.

JOHN R. ROWE, Educational Director, Encyclopedia Britannica, Inc., 425 North Michigan Avenue, Chicago 11, Ill.

ROY K. WILSON, Director, Press and Radio Relations, NEA, 1201 Sixteenth St., N.W., Washington 6, D. C.

Editorial and Business Staff

STANLEY ELAM, *Editor;* JULES V. HARCOURT, *Business Manager*, Eighth St. and Union Ave., Bloomington, Ind.

In This March 1960 Issue

Page

Editorial, What—and Where—Is Educational Research? . 241

Education's Greatest Need: A Vice-President in Charge of Heresy, *Philip H. Coombs* 243

What Has Happened to Life-Adjustment Education? *Carl G. F. Franzen* 248

Life-Adjustment Vs. Basic Education, *V. T. Thayer* . . 250

On Colleagues and Clients, *Paul Kirkpatrick* 254

Teachers Colleges Vs. Liberal Arts Colleges in Teacher Preparation, *C. M. Lindvall* and *Clifford P. Hooker* . 260

An Early Crash Program, *Edward H. Redford* 264

Agreements on Curriculum, *Paul R. Pierce* 265

Promising Practices in Education, II, *Robert S. Gilchrist* . 269

Books for Leaders

THE NONGRADED ELEMENTARY SCHOOL, *John I. Goodlad* and *Robert H. Anderson*, reviewed by Irwin Widen . 274

THE ROLE OF THE SCHOOL IN AMERICAN SOCIETY, *V. T. Thayer*, reviewed by William F. Bruce . . . 276

Moral Compulsion, Civilization, and Schools, *P. K. Platts* . 278

Labelism and the Dedicated Teacher, *Ian Braley* . . . 283

Keeping Abreast in Education 285

Copyright, 1960, by Phi Delta Kappa, Inc.

Entered as second-class matter at the post office at Spencer, Indiana, under the Act of August 24, 1912. ☆ Published monthly, October to June, inclusive, by Phi Delta Kappa, Inc., at Spencer, Indiana. Acceptance for mailing at a special rate of postage is provided for in the Act of February 28, 1925. ☆ Subscription rate, $4.00 per year. Single copies, while available, 50 cents each, from the Bloomington Office. ☆ Official statements of Phi Delta Kappa are so indicated. Other statements and articles are published as expressions of the personal views of the writers. ☆ Listed in *Education Index*, published by the H. W. Wilson Company, New York, N. Y. ☆ EDITORIAL OFFICE: Phi Delta Kappa, Eighth St. and Union Ave., Bloomington, Indiana. ☆ Member, Educational Press Association of America.

Address all communications, purchase orders, and address changes to the Business Manager, PHI DELTA KAPPAN, Eighth St. and Union Ave., Bloomington, Indiana.

EDITORIAL

What—and Where—Is Educational Research?

March is traditionally "Research Month" in Phi Delta Kappa. A number of chapters devote their March program to some phase of educational research.

The second annual national Phi Delta Kappa research symposium will be held on March 24 and 25 at the University of Minnesota. Its theme is "Research Design and Analysis."

The book publishing Symposium One papers and discussions is now on sale, for delivery before the end of this month. (See advertisement, back cover, this KAPPAN.)

This is a good time to ask, "What—and where—is educational research?"

"IN a population which is so dependent on research, it is sad to reflect how few people perceive what it is all about."

So said the late Palmer Johnson of the University of Minnesota in opening Phi Delta Kappa's first national symposium on educational research at the University of Virginia last spring. A leader in the fraternity's move to focus professional attention on the status and needs of educational research, Dr. Johnson died of a heart attack Sunday morning, January 24, while working on a paper to be presented at the second symposium.*

In his introductory remarks as chairman, Johnson went on to give this thumbnail definition: "Research is an approach to a comprehension of the universe along a broad thoroughfare of organized knowledge solidly established on observation and experiment imbedded in a matrix of theory. It is a highway that is continuously being lengthened, widened, and mended."

While hardly complete, this definition goes considerably further than Engine Charlie Wilson's famous definition of basic research as that which is done by scientists who don't know what they're doing. And its final metaphor invites extension, when one considers the foggy, foggy road of educational research. That part of the research highway devoted to education is, it seems to us, in exceedingly poor repair, full of holes attributable to amateur workmanship, and breaking up entirely in spots because of bad engineering and faulty specifications.

While cast in terms worthy of the fine gentleman its author is, the symposium paper presented last spring by Nicholas Fattu of Indiana University constitutes a crushing indictment of educational research as conducted in American universities today. Dr. Fattu had just completed a year-long, U. S. Office-supported study of the ten U. S. institutions most highly regarded for the quality of their educational research output. He was reporting what he saw at these "superior" institutions and what he heard in interviewing over 200 people thereat. As we read the paper, it makes plain that not enough is being done to provide a favorable research climate; that funds are woefully small in comparison with funds available for instruction (in only one case are they as much as half as large); faculty time assigned to research is miniscule (usually under 25 per cent); and the research significance of much faculty publication is highly questionable.

What about the other eighty institutions offering the doctorate? What about the hundreds offering the master's?

And how about deans' replies to the important question, "What is educational research?" At first Dr. Fattu tries to contain himself, saying, "Educational research seems to have rather fluid boundaries." But then he breaks down and confesses,

* The paper is being completed by Dr. Raymond Collier, who will present it at the Minnesota symposium chaired by E. F. Lindquist of the State University of Iowa.

"One is forced to the banal, if not actually tautological, operational definition that educational research appears to be what educational researchers do."

There is much more to the symposium story than this, of course. For example, the discussion that followed Dr. Fattu's paper brought out the provocative fact that by refusing to define educational research too rigidly we may actually reap important gains. Certainly, the papers delivered by Ralph Tyler, Herbert Conrad, Warren Findley, and Ernest Nagel contain contributions at least as worthy, if not usually so spectacular, as those of the Fattu study. In any case, we heartily recommend to every Phi Delta Kappan that he buy the book containing the five papers and three discussions recorded at Charlottesville. All are profoundly significant for professional education. A foretaste of their quality and direction may be found in the concluding paragraphs of the Fattu manuscript:

> Outstanding institutions were selected in order to observe the state of practice at its best. The complacency observed was disturbing. To be sure, there were many examples of capable and dedicated workers. However, the non-discriminating kinds of activity currently carried on under the name of educational research tend to bury these with the mediocre.
>
> The physical, biological, medical, and agricultural sciences have recognized that their effectiveness is based on a constant harvest of new knowledge. Innovations are systematically developed from an ever-increasing body of knowledge and are rigorously tested for effectiveness. Contrast this with the usual practice in education. The plain fact is that the formula of innovation by accidental discovery or improvisation is completely antiquated.
>
> Historically, the older sciences began and were supported for centuries by the work of amateurs. Their significant period of growth, however, began only when the amateur ceased to play the major role. Adding to the basic fund of knowledge in education is rapidly approaching the stage where casual part-time effort is not enough. Education will begin to approach its proper level of efficiency only when we recognize that the problems of effectiveness are scientific and technical, not political. Only by inspired, sustained, and systematic research in education similar to that which has graced the older sciences can education become truly effective. In that research the membership of Phi Delta Kappa must be prepared to play a proud part.

—SME

Business Group Endorses Federal Aid

► Federal aid to schools has received its first major endorsement by a national business-education group. The Committee for Economic Development, whose roster resembles *Who's Who in American Business,* made four recommendations for financing public education in a major policy statement issued in early February. One of them was that "federal supplementation of state and local funds is necessary for the improvement of schools in the poorer states" and asks that "the federal government make financial grants to support public schools in those states where income per public school child is substantially below the national average." The recommended program would involve a federal appropriation of approximately $600 million annually; if it were in operation today, it would grant funds to eleven states.

In boldface type, however, the report, titled *Paying for Better Schools,* says this: " . . . we oppose any proposal for general support of school systems on a nationwide basis."

Other recommendations call for: (1) a new attack on redistricting by state law; (2) increased state aid to local school districts; and (3) citizen effort to improve schools. The first two, CED believes, "are capable in most states of eliminating the numerous local pockets of substandard education." In the first, the committee recognizes that redistricting is an old problem and urges a "fresh attack": mandatory and immediate state action to reduce districts from 45,000 in number to 10,000, with a standard minimum of 2,000 students per district. In the second recommendation, the committee joins those who believe that local property taxes are increasingly limited means for financing education. CED urges states to take over a larger share of costs and distribute funds to districts through a foundation program which pins down essential ingredients of a satisfactory school program; makes allowances for fluctuating costs; and makes up the difference between costs and amounts raised by the district through a moderately low, uniform rate of property tax.

Dissent to the committee's federal aid formula by committee members themselves ranged from veto of any aid to endorsement (by William Benton, Beardsley Ruml, and former Undersecretary of Commerce Wayne C. Taylor) of the Murray-Metcalf Bill. Benton said, "I feel strongly that recommendations of this report do not match the national emergency. But I commend CED for a report on education more courageous and forthright than any issued by an organization representing the business community. . . . The statement is to be applauded for recognizing the acute crisis in the field of education and for endorsing federal action, even if on a scale far smaller and more restricted than I deem essential."

Education's Greatest Need:

A Vice-President in Charge of Heresy

A frustrated administrator put it this way: "It is easier to move a cemetery than to overhaul the curriculum." Dr. Coombs of the Fund for the Advancement of Education believes this static condition to be characteristic of American education. Yet certain industrial enterprises have discovered the secret of innovation, experimentation, and improvement. Can we learn it?

By **PHILIP H. COOMBS**

THERE is no doubt whatever that if the United States is to catch up and keep up with its mounting educational needs, we must as a nation invest considerably greater sums of money in our schools and colleges. We tripled our outlays in the past decade and we must at least double them again in the next decade. We must raise teachers' salaries further. We must have more buildings and better equipment. We must, in short, do all these obvious things which the spokesmen and friends of education have been telling us all along we must do.

But this is not all we must do. We cannot hope to meet our expanding needs simply by spending more money to do on a larger and more expensive scale what we are already doing in the schools and colleges. We cannot because almost everything we are doing is obsolete and inadequate. This applies to the curriculum, to arrangements for teacher training, to organization, to methods of teaching and of learning, to school architecture.

What the advancement of education requires, just as much as more money, is a larger and more dynamic frontier of experimentation and new developments, and a pervasive professional mood which not only tolerates innovation, but which welcomes and encourages it. Herein lies today, I believe, education's greatest shortage.

IN trying to overcome this shortage, educators may find some useful lessons in the experiences of other sectors of our economy.

One who commutes on the New Haven Railroad, as I do, has plenty of time and occasion to speculate on why it is that some industries are so much more dynamic and progressive than others. Some industries do not seem to have had a really important new idea or major innovation in years; their costs keep rising and their products or services get no better. Certain other industries, however, are constantly inventing new products, improving their old ones, improving their methods of production and reducing their costs. These latter industries are the ones that pave the way to higher living standards for the nation.

If we were to array various industries in a spectrum according to their dynamic quality and progressiveness, we would probably put the railroad industry—or at least the Northeastern branch which I patronize—on one extreme end. Close to it would go the housing industry, whose approach to building a dwelling—by cutting and fitting and piecing together thousands of tiny pieces at very great cost—has changed very little since the early Egyptians.

Toward the other end of the spectrum we would find such industries as chemicals, electronics, and petroleum, which have several important characteristics in common. They have been growing rapidly; a large portion of their current sales is in new products which were not even on the market ten or fifteen years ago; their research and development expenditures are high; and they are geared organizationally and psychologically for rapid change.

Here are a few specifics:

• The chemical industry has averaged an 11 per cent annual growth rate since the War, compared to only 5 per cent for industry generally. The major chemical companies spend 3 to 5 per cent of their sales dollar on research and development. Dow and Monsanto traced 30 to 40 per

---

MR. COOMBS *is secretary, Fund for the Advancement of Education, and program director, Education Division, Ford Foundation.* *This article is adapted from an address he made before an Educational Press Association group at the American Association of School Administrators convention, Atlantic City, on February 16.*

cent of their 1956 sales volume to research done within the previous ten years. The "agri-chemicals" (fungicides, herbicides, and insecticides) became a $400 million industry in less than a decade.

• The electronic industry's equipment sales rose from $2.7 billion in 1950 to $10 billion in 1959. The six-fold increase in the industry's manufacturing employment in less than twenty years has been attributed largely to its expenditures on research and development. The invention of the transistor in 1948 opened a new era in electronics technology which is affecting a wide range of other industries. Westinghouse Electric Corporation reported that 60 per cent of its 1956 sales volume was in products introduced since the War. The same company planned to spend in 1959 on research and engineering an amount equal to over 9 per cent of estimated sales for the year.

• Petroleum research over the past forty years has raised the yield of gasoline from a barrel of crude oil from 12 per cent to nearly 50 per cent. Thanks to improvements in refining, according to an official of Standard Oil of New Jersey, two gallons of today's gasoline can do the work of three gallons of the 1925 vintage, with little difference in cost to the consumer (exclusive of taxes), despite inflation.

• The petrochemical industry mushroomed from 1948 to 1958, with a four-fold increase in production volume. Among the new product groups of the past decade, thermoplastics is the most outstanding. Production of polyethylene alone rose from twenty million pounds in 1948 to 800 million in 1958.

Interestingly enough, we must also locate American agriculture far on the dynamic end of the spectrum, even though farmers have been reputed to be slow to accept change.

Thanks to large agricultural research expenditures, generously supported by government, and to research and development by industries associated with agriculture (such as machinery and chemicals), productivity has risen more rapidly on the farms than in most industries, and more rapidly in recent years than earlier. In the decade of the Fifties, the yield per acre increase for major crops ranged from 20 to 75 per cent. The per-acre yield for corn, which alone accounts for one-fourth of total production, jumped 35 per cent.

Far more agricultural production is being turned out today than a generation ago with much less human effort. Government estimates indicate that total man hours worked in agriculture fell from twenty-four billion hours in 1920 to eleven billion in 1959.

Economist Henry Villard has expressed the plausible view that the four-fold increase in real income per person in the U.S. between 1870 and 1950 must be explained more by the improvements in products and productive techniques than by the simple increase in capital invested. The effectiveness of research and innovation, he says, is of the essence in any consideration of the probable performance of an economy over time.

It is significant, therefore, that according to estimates by McGraw-Hill economists and the National Science Foundation, research and development expenditures in the United States in the scientific and technical fields grew from $3.1 billion in 1949 to $12 billion in 1959, and are expected to increase further to $22 billion by 1969.

Of last year's total of $12 billion, the government financed 60 per cent, industry 37 per cent, and colleges and other institutions 3 per cent. In terms of who actually did the work, however, industry did 76 per cent, government laboratories 13 per cent, and colleges and other institutions 11 per cent.

A considerable portion of the nation's research and development effort, of course, is devoted to defense requirements, though many new developments here carry over into peaceful uses, such as commercial jet aircraft transportation and many electronics developments. In the current fiscal year, out of a total of just over $7 billion of federal expenditures for research and development, more than $5⅓ billion is for defense, and this does not include space research and atomic energy research carried out by civilian agencies. The fact that more than 10 per cent of the defense budget goes for research and development helps to explain why new weapons systems become obsolete in less than ten years. The total spent on research in the social sciences, including education, is a drop in the bucket compared to research and development in the physical and biological sciences.

LET us look now at the characteristics of the enterprise called American education and ask ourselves where in this spectrum it should be placed.

Viewed economically, education is one of the nation's largest "growth industries," measured by its employment, its annual expenditures, its rate of expansion, its capital facilities, and the size of the clientele it serves. One-fourth of the whole population of the United States is attending school or college today.

Despite its rapid growth, education has been notoriously slow to change its internal arrangements. In the sense of resisting fundamental change and innovation involving its own internal affairs, education all over the world has historically been one of the most conservative of all human institutions. According to those who have researched the matter, the typical time lag between the initial successful application of a new educational idea or practice and its general adoption by a majority of schools or colleges is on the order of twenty-five to fifty years. This seems paradoxical in light of the very considerable influence which educational institutions have had, directly or indirectly, in spurring change elsewhere in our society.

This is not to say, of course, that education does not change; it does. But change in education does not ordinarily come about abruptly through sudden radical innovations, as was the case, let us say, with hybrid corn, the mechanical hay baler, or new type oil refineries. It comes about instead through a slow process of refinement and accumulation, through a process of addition and multiplication, and seldom through subtraction or division. One has only to study the history of the curriculum to see that new substance and new labels are constantly added, but seldom is anything dropped. There is an overpowering stability in the curriculum. As one frustrated administrator observed, it is easier to move a cemetery than to overhaul a curriculum.

It is no exaggeration to say that there has not been a profoundly radical innovation in the technology of education since the introduction of the book, until the recent appearance of television. Radio and the educational films threatened for a time to make a significant technological breakthrough in education, but they were safely contained by the weight of tradition and folklore to the status of fringe benefits. The self-contained classroom with its screeching, dusty blackboard, with its one teacher and as few pupils as possible, and with the textbook as bible, remained inviolate for generations.

Likewise, the logistical pattern of the teaching-learning process has remained unchanged, except for occasional minor refinements, usually in the direction of greater uniformity and rigidity. For all the talk about "individualized learning," the chronological lockstep from kindergarten to the twelfth grade and right on through college became increasingly entrenched over the years. The school day has become increasingly standardized and more structured, with a loud bell that chops time into uniform chunks and which obliges us to build wide corridors in our school buildings to handle the periodic waves of humanity.

Teacher salary structures have likewise become more rigid and monolithic, implying a uniformity of ability, of function, and of productivity among all teachers. School buildings have grown prettier and more elaborate, but the basic internal design is still dictated by the self-contained classroom concept—like the uniform compartments of an egg crate.

The curriculum, at least in surface appearance, has probably changed more than anything else. But if one is to accept the judgment of many scholars and curriculum experts, the curriculum, though it has proliferated and put new labels on old bottles—such as "language arts"—has fallen rather badly behind the times, has grown soft and mushy in important places, and in many schools has lost any real semblance of perspective, of internal cohesion, and of priorities.

If all this is true, or even half true, then we must rank education as a relatively undynamic, unprogressive industry. This would be no problem if we could say that the prevailing methods, procedures, techniques, and curriculum arrangements are generally satisfactory and accomplishing what we want them to accomplish. Large infusions of additional funds to expand the enterprise and to enrich it somewhat would suffice to meet the nation's educational challenge.

But this is distinctly not the case. Our past procedures have obviously failed to keep either the curriculum or the teachers up-to-date, so that the education a student receives is likely to be seriously deficient and obsolete in terms of the present state of knowledge and needs. Our methods of instruction are demonstrably wasteful of the time and energies of students and teachers alike. Our system of recruiting, training, utilizing, and advancing teachers and administrators has failed seriously to secure the quality of manpower needed for high quality education. And this system will not yield satisfactory results even if teachers' salaries are raised considerably, as they must be. The system itself must be radically altered and improved.

In short, our schools, and our colleges as well, cannot meet the educational challenge ahead without instituting far-reaching internal changes and improvements. These must include not merely refinements and modest improvements of existing practices, but revolutionary breakthroughs as sweeping as those which have made possible the dramatic progress in other sectors of our society.

The key to dynamic progress in other sectors of our society, as we have seen, has been a heavy emphasis on imaginative research and develop-

ment, and a willingness, indeed an eagerness, to accept and apply the results of such research even if it means abandoning old methods, old processes, and old products to which people have grown fondly attached.

Research and development aimed at improving education has been at a pitifully low level and has never been taken really seriously by most educators.

No really satisfactory measurements are available, but it is doubtful that educational research and development expenditures, even generously defined, amount to more than one-tenth of one per cent of total annual expenditures on education in the United States. The federal government, for example, is spending $119 million this year on agricultural research, but the Office of Education has only $6.2 million to award for educational research under the Cooperative Research Program and Title VII of the National Defense Education Act.

Educational research has not been regarded as a respectable field of endeavor for the best scholars in such "old line" fields as history, economics, political science, sociology, and psychology. The responsibility has been left almost entirely with faculties of education, who have labored valiantly but under great handicaps and with distressingly small results. Much of the research has been on such a small scale, so fragmented, and often on such minor subjects, that the really big problems have gone largely unattended.

Moreover, it must be said very frankly that most of us involved in education, though we revere research in other fields, are not really very anxious to accept and apply research conclusions in education, except when those conclusions fortify our preconceived notions. Research results which challenge articles of faith in the folklore of education are often either ignored or rejected.

One important reason, no doubt, why all of us in education cling so tenaciously to the security of old and familiar practices (and tend to shroud them in a mantle of mystical sanctity) is that our training as teachers has not equipped us for change. A young physicist, these days, is imbued with the spirit of challenging old concepts and of seeking radically new ones which will upset and displace them. The future teacher is lectured and drilled on the best current practices but all too often seems to carry away the notion that these are not only the best practices of the moment but the best ones for all time. In the educational profession, far too little prestige attaches to challenging and upsetting old practices or introducing radically new ones. On the contrary, too many teachers and administrators fear that they will risk their professional status by associating with the unconventional.

Another deterrent to change is the manner in which education is organized and administered. In all major corporations in the dynamic industries, one of the most strategic officials is the vice-president for research and development. He has a respectable budget and a very bright staff. Their job, to put it bluntly, is to render obsolete as quickly as possible everything their company is now doing or producing, in favor of something better. They get paid and praised for this.

Who is in charge of change and innovation, in charge of rendering things obsolete, in a typical public school system? Everyone from the superintendent down is working overtime to keep the enterprise going smoothly and, when time and money permit, to improve it a little here or there. It is nobody's full-time responsibility to challenge, to invent, to foster experimentation and promising new developments.

What would happen if every public school system and every institution of higher learning had an able top official in charge of research and development—a "vice-president-in-charge-of-heresy"? His job would be to welcome fresh ideas, to encourage the trying out of new approaches in his school system or college, to evaluate the results, and to pass these on, good and bad alike, to colleagues in other school systems and colleges.

And suppose that every school system and college set aside one or two per cent of its annual budget for this important function of research and experimentation. Suppose that everyone concerned became enthusiastic about the enterprise of rendering obsolete the best educational practices of today in favor of even better ones for tomorrow. Given such conditions we would have as many experimental laboratories for education as there are school systems and colleges, there would be a wholesome mood of adventure and innovation, the virtues of local autonomy would become real, and the carping critics of education would be left far to the rear.

Given such conditions, the next ten years might witness an educational revolution, a far-reaching breakthrough in the art of teaching and learning that could advance education and the fulfillment of human potential beyond our fondest hopes.

Such a picture need not be an idle dream, for within the past half dozen years American education has in fact made a substantial beginning toward just such a revolution of learning. The need for basic change, for a mood of innovation, for

drastic breakthroughs in education, has been widely recognized by many professional educators and laymen alike. There is more significant experimentation, more new developments, under way today in schools and colleges throughout the nation than at any previous time. Moreover, the schools and colleges are not alone in their endeavors. Government, private industry, citizen groups, and private foundations are joining with schoolmen and college people on an increasing scale to provide the ways and means for better teaching and better learning.

The evidence of this new mood is abundant. As of last spring, for example, only a few years after the first attempts to adapt television to the service of learning, 569 school districts and 111 colleges and universities were making regular use of television for instruction. They still had a great deal yet to learn about it, to be sure, but they were boldly beginning to learn. Many dozens of schools are likewise experimenting today with various ways of improving the utilization of teachers, as by the use of teacher aides and team teaching. A rapidly growing number of high schools are striving to improve the ability of students to write by providing their English teachers with the help of lay readers.

Numerous efforts are being made to improve the education of gifted students, which was not a particularly popular objective a few years back. The Advanced Placement Program, for example, is growing rapidly, as is the practice of early admission to college.

A considerable number of schools of education are undertaking major revisions of their programs and accepting much more responsibility than previously for helping public school systems to overhaul their own arrangements. Many schools and colleges have introduced language laboratories and are experimenting seriously with new types of "learning machines" (the book being an earlier type which still has great unused potential!).

Many other examples of fundamental change and innovation, and of an awakening spirit of "frontiersmanship" in education, could be cited. But the examples are still too limited in number and confined to too few places.

LET us summarize, finally, the essential conditions for achieving a large and dynamic frontier for education which, along with increased general financial support, can help our schools and colleges meet the challenge of the next decade.

1. A pervasive attitude throughout the educational world that favors and fosters research, experimentation, and innovation—not change for its own sake but change carefully calculated to lift the level of learning and to lift the status of teaching.

2. Greatly increased financial provision for these purposes, built into the regular budget of every school system and college as well as well-organized state and federal programs and privately supported ones.

3. Administrative arrangements in every school system, state department of education, and colleges to insure a continuing and well-staffed research and development activity.

4. A great outpouring of imaginative ideas from the best minds and leaders within the educational enterprise.

5. A drastic improvement in educational reporting which will enable educators and laymen alike to keep fully and accurately informed about new developments on education's frontier, and which will help create an atmosphere favorable to such developments.

Six Dramatic Changes Predicted

► Writing in the January *Connecticut Teacher*, State Education Commissioner William J. Sanders predicted six dramatic changes in education which will take place during the next few years. They are:

1. Because of the need of a sense of national purpose, the emphasis will be more upon public interest and less upon the interest of the child and his parents.

2. An increase in state and federal grants to education is necessary even though it will bring about a lessening of local control.

3. Many town school districts may well become obsolete and be replaced by regional districts.

4. The goals of education will become more clear and specific and will be stated in state and national terms, resulting in more uniform statewide and nationwide curricula.

5. The quality of teaching will be improved by the more efficient use of teachers and more imaginative approaches to teaching.

6. There will be continuous nationwide evaluation of curriculum and teaching methods and both content and method will be subject to rapid and widespread change.

NEA Quantifies Denial of Opportunity

► Some 400,000 bright children a year are denied the full chance to develop all their potential, according to *Administration Procedures and School Practices for the Academically Talented Student in the Secondary School*. This is the publication growing out of the NEA's Project on the Academically Talented Student. It may be secured for $1.25 from NEA headquarters in Washington.

What Has Happened to LIFE-ADJUSTMENT EDUCATION?

By **CARL G. F. FRANZEN**

IN 1946, the strongest advocate of vocational education, Charles A. Prosser, realized that the modern high school was faced with the problem of how to handle that large number of boys and girls who were in school for no particular reason except custom's decree. They weren't interested in going to college. They weren't interested in learning a trade. And yet they were in classes with others who seemed to have such goals in mind. The word "drifter" fits them best. They took life as it came, they weren't bothered by any particular challenges, their attitude toward schoolwork couldn't be more nonchalant—but they attended classes and cluttered up classrooms.

So far as the teacher was concerned, these drifters were just as much of a problem as the students who were trying to learn something. Their attendance had to be checked, their reports heard or read, and their examinations graded. There were times where the teacher had to pay even more attention to them, because they tended to slight assignments.

Prosser was convinced that at least one of the reasons these drifters were such a load on the teacher was that they were compelled to pursue the same academic program followed by the purposive students. If a student was enrolled in academic courses, he felt that he had to pass them and even do well in order that he might get into the college of his choice. If he took practical arts courses, it was because he felt that they would help him get a job. But if he didn't plan to go to college, if he hoped, upon leaving school, to get a job just because it was a job and not because he needed any training for it, then it wasn't easy for him to see what good any of the subjects he was studying in high school might do him. In most cases he would dutifully attend classes, but his mind was elsewhere.

The background of this situation is rather obvious, but perhaps it is worth sketching here. From its inception, the secondary school had been geared to the student who was planning to go to college. Consequently, the subjects taught in high school *and* their content were aimed at this type of student. Then, toward the end of the nineteenth and the beginning of the twentieth century, so-called vocational or practical arts subjects were introduced, primarily to take care of those boys and girls whom compulsory age laws were forcing into our secondary schools. Courses in business education, machine shop, woodworking, commercial art, music, and home economics were supposed to serve the needs of this second group. But only in what came to be called comprehensive high schools were such courses actually taught, unless you make an exception of specialized vocational schools that found favor some fifty years ago. Small schools tried to widen their offerings by introducing some of these practical arts subjects, but never quite successfully, because of the difficulty of procuring qualified teachers to teach them.

The famous Committee of Ten had promulgated the theory that any subject, if properly taught, was as good as any other for "training the mind," a doctrine that has been disastrous in its influence upon the secondary school curriculum. In brief, the theory implied that subjects taught in certain rough and tough ways actually would "make a silk purse out of a sow's ear," that, no matter how dull a person might seem to be, his mind would be properly trained if he were subjected to the mental or formal discipline method of teaching, as it came to be called.

This theory prevailed almost universally until Thorndike and James showed, experimentally as well as philosophically, that individuals possess various capacities to learn, and that it is a hopeless task to subject those of below-average and even average intelligence to the same pattern of studies the brighter ones can profitably pursue. And still the schools maintained their routines,

---

MR. FRANZEN *(Alpha 369) is professor emeritus of education, Indiana University. For nearly thirty years, he was chairman of the Indiana State Committee of the North Central Association of Colleges and Secondary Schools. He has been closely associated with life-adjustment education since its inception. His* Principles of Secondary Education *appeared in 1955.*

aiming at those who were intelligent in the use of their minds or their hands. But, what was worse, the schools, almost in despair as to what to do with the huge influx of students—many of whom obviously couldn't do academic work—put these pupils into the practical arts courses. The result was that vocational areas came to be considered the dumping ground for intellectually less capable boys and girls.

Decreasing Need for Special Training

Something else was happening in this society of ours synchronously with the increasing enrollments in our schools. This was the decreasing need for any special type of preparation to enter upon many of the jobs in the world of work. In fact, in many instances schools were told to give boys and girls only general training, that the industry or business would then do the necessary job training. The schools' answer was to keep on putting these boys and girls into the same courses offered the college-bound or manually gifted.

Now it stands to reason that most of us have to see a purpose in what we are studying or doing. There has to be a goal of some sort for us to aim at. If there is no goal, we lose interest. That is exactly what was happening when Charles Prosser took up arms in defense of these aimless kids. In his famous resolution of 1946, he came to their rescue and coined the phrase "life-adjustment education." What did he mean by it? Just this, that education has been and always should be an effort to help all boys and girls adjust to the world in which they have to live. There's the problem of adjusting to college, of adjusting to one's associates, of adjusting to one's economic status, of adjusting to one's job, of adjusting to one's own potentialities. Life is a constant struggle on the part of an individual to adjust to every phase of it. The word "adjustment" is one of the most significant ones in the whole educational process. In fact, it might be substituted for the word "education." Really, the two are synonymous.

Meaningful Content in Common

Prosser's analysis and his question made sense to many educators. What could the schools do to make the time spent in school more profitable for all concerned, the drifters as well as the others? The most obvious answer was to make the content of all courses more meaningful in the lives all students live in common. There was nothing particularly heretical about such a procedure. Just examine the textbooks in any curriculum library and you will find many, many changes that have been made in the last century or two in order to bring content up-to-date. The present is always different from the past.

And so there were conferences, mainly sponsored by the U. S. Office of Education in the late Forties and early Fifties, to figure out just how the secondary schools of the country might adapt (the word is "adapt," mind you) their present courses so as to make them more meaningful to teen-age boys and girls. That the participants in these conferences were sincere is beyond question. Several bulletins were issued as a result of these conferences, the most important probably being the one called *Vitalized Education*. And it was about this time that an organization calling itself Science Research Associates began issuing significant bulletins that dealt with teen-age problems.

It was not the intent of conference participants to introduce a life-adjustment curriculum, although there were some crackpots out in the field who interpreted the committee recommendations that way. The idea was to render what was already being taught *more* meaningful to students, and, if necessary, introduce homogeneous grouping in order to do so. What was sauce for the goose was *not* necessarily sauce for the gander.

The Misconstructions Begin

Now what seems to have happened is that some unfavorable publicity cast a shadow of doubt on what the schools actually were trying to do. Some of this publicity came in connection with the efforts of a few educators to introduce so-called life-adjustment subjects into the curriculum. Then came an unfortunate identification of life-adjustment education with a sort of softened, easy-going one. Self-appointed critics, some of whom had not been in a secondary school since graduating from one, began to cry copiously over the way schools were "abdicating their rigorous programs in favor of less difficult ones." The "life-adjuster" became synonymous, in the eyes of men like Bestor, with anyone who would reduce standards. A return to the "good old days" was vigorously championed. And what were these "good old days"? They were the ones when there were no compulsory school age laws and when youngsters could be kicked out of school right and left because they couldn't or wouldn't pass the college preparatory subjects. The "good old days" soon got rid of any drifters who might be in school.

But we aren't living in the good old days. We're living today, and we must face the problems of today. We simply cannot shut our eyes to the fact that our secondary schools are filled with

thousands and thousands of teen-agers who, upon graduating from or quitting school, will enter upon jobs that do not demand previous preparation. We must also realize that it is not tenable to hold the position that subjects are being taught for themselves, or that there is some inherently magic quality in a subject that will cause all who study it to profit from it. A little research will show that every subject that ever entered the curriculum from tribal days to the present came in because there was, at the time, a felt need for it. In other words, the new subject always served a practical purpose. Benjamin's "The Saber Tooth Curriculum" gives marvelous illustrations of what often happens to such subjects. They remain in the curriculum when their usefulness has disappeared. They have developed a vested interest that insists on their being taught after the need is gone. Even when the content of certain subjects is somewhat altered to conform with changing times, it is often extremely difficult to find any real excuse for their persistence.

The prime purpose of life-adjustment education was nothing more than to put some life and meaning into the curriculum. But when detractors began to refer to it in jeering terms, its advocates took refuge in omitting the phrase so as not to be associated with the implied letting down of standards. The term "life-adjustment" may not be in good repute today, but in essence it cannot die. Properly understood, it is what education is all about. Those who truly care for the welfare of our teen-agers want them to be better physically, to enjoy their leisure more profitably, to associate with each other more equitably, and to use wisdom in selecting their life work. These are goals the schools must continue to pursue, no matter what label we give the process.

Life-Adjustment Vs. Basic Education

A distinguished analyst presents a balanced view of the day's most controversial educational issue.

By V. T. THAYER

IN his *The Child, the Parent, and the State,* James B. Conant asserts that only recently have the American people begun to realize the revolutionary changes in their schools which have come about in the past fifty years. "Only after the post-war adjustment had been made," he writes, "did any large number of articulate Americans wake up to what had happened. And as often is the case with those suddenly awakened from a deep sleep, the first exclamations were not too closely related to the actual situation."

"Articulate" and "not too closely related to the actual situation" would seem to describe with a fair degree of accuracy the persistent indictment of "educationists" in book, magazine, and the daily press. "Educationists," according to Mortimer Smith of the Council for Basic Education, are "principals, superintendents, state department officials, and—perhaps especially—those professors of pedagogy in the teachers colleges and schools of education who train these administrators and functionaries."[1] "Educationists," to continue with Smith, are "practical men of action" who, "through the consolidation of power" and "effective lobbying . . . in the state legislatures," have succeeded in establishing professional criteria for entrance upon the profession of teaching and in substituting "life-adjustment education" for the valid education our schools once afforded.

MR. THAYER *is author of the recently published book,* The Role of the School in American Society, *reviewed in this issue of the* KAPPAN. *He lives at 5726 Little Falls Road, Arlington 7, Va.*

[1] *A Citizens Manual for Public Schools, A Guide for School Board Members and Other Laymen.* Washington, D.C.: Council for Basic Education, 1959. pp. 34 ff.

"Life-adjustment education," as envisaged by its critics, is a Hydra-headed monster:

1. It refers to the transformation in content and purpose of subjects of study once considered basic in the training of the mind into subjects the contents of which are channeled in the direction of immediate life applications. Thus, courses in English that once taught grammar and correct oral and written expression now operate on the assumption that there are no valid standards of usage, merely different levels of acceptance with which the student may become acquainted in the "communications laboratory" while engaged in "real life activities" such as using the telephone, writing a letter, or participating in a panel discussion on radio or TV. Algebra and geometry give way to "consumer mathematics," and physics and chemistry to the "finished words of science."[2]

2. Recent years have witnessed in the secondary schools a proliferation of courses, non-vocational as well as vocational, with two reprehensible results. Under the elective system they function in the student's program as a camel's nose. (In 1949, for example, vocational and non-vocational subjects enrolled nearly as many students as mathematics, science, and foreign language combined.)[3] Secondly, the methods of teaching employed center not upon the development of understanding but upon the "conditioning" of students in what Admiral Rickover terms "the minutiae of daily living."

3. The "valid task of the school," the intellectual training of the young through the mastery of accepted subject matter, has become secondary to adjustment in areas social and civic. Social adjustment, moreover, is equated with complete "cooperation with the group" and the introverted personality with "suburban adnormality." Conformity to group pressures, the substitution of discipline by the group for correction of misbehavior at the hands of the teacher, pupil participation in lesson planning, and teacher "permissiveness" are being used to transform self-sufficient Americans into the "organization man."[4]

4. Inherent in these trends is an anti-intellectualism which discourages solid intellectual achievement and enables students to advance from year to year without adequate preparation.

This brief summary covers fairly well, I believe, the principal indictments of life-adjustment education as contained in recent publications. How shall we appraise them?

Let us begin with the charge that educationists, by "consolidating their power," have brought about the developments mentioned.

Shabby Scholarship by 'Scholars'

This is a strange indictment to come from individuals and groups who profess to put scholarship first in their program of educational reform! An objective review of educational developments in the United States over the past fifty years reveals not one but many factors operating to effect changes in the schools. The abolition of child labor, raising the age of compulsory school attendance, the steady elimination from the labor market of young people above as well as below the age of compulsory school attendance have brought about revolutionary changes in the composition of student bodies on all levels of education—elementary, secondary, and higher. The educationists have not been alone in their concern that public education take account of these developments. Organizations of employers and employees, social workers, humanitarians, reformers have urged the schools to introduce the practical subjects into the curriculum and to modify conventional offerings so as to render schooling more meaningful and more attractive to that increasing number of young people for whom blind alley occupations alone offered an alternative to schooling. To be sure, in response to a professional obligation, educationists have translated these demands into specific programs and new requirements in the preparation of teachers. In doing so, mistakes have doubtless been made, mistakes which now call for correction. But it is one thing to recognize error and the need for a revision of policy in the light of developments and quite another to indict a profession as a "powerful junta" which has "acquired complete control of elementary and secondary education."[5]

Shabby scholarship also explains the charge, repeatedly made, that life-adjustment education with its emphasis upon "conditioning" the student in the "minutiae of life applications" derives logically from John Dewey's philosophy of education. An acquaintance with the formulations of behavioristic psychology early in the century (derived largely from experiments in animal learning) and its applications to the curriculum should enable one to avoid this error. The behaviorist identified all learning as habit formation of a specific character and insisted that courses in

---

[2] John Keats, *Schools Without Scholars*. Boston: Houghton Mifflin Company, 1958. Chapter 5.
[3] John F. Latimer, *What's Happened to Our High Schools*. Washington, D.C.: Public Affairs Press, 1958. pp. 120-121.
[4] See Chapter 28 on "The Organization Children" in William H. Whyte, Jr., *The Organization Man*. Garden City, N. Y.: Doubleday and Company, Inc., 1956. Also, Keats, *op. cit.*, Chapter 5.

[5] See, for example, Smith, *op. cit.*, p. 35.

school be organized on the pattern of "job analysis," or, as Franklin Bobbitt and his associates insisted, upon the basis of an analysis "of the major fields of human action" into "specific activities."[6]

Influence of 'Melting Pot' Concept

To behavioristic psychology and the influence of scientific management in business and industry as reflected in the work of curriculum makers should be added the concept of the "melting pot," an idea dominant early in the century, but in no way confined to educationists. This conceived of the school as an agency of the community admirably adapted to the transformation of the foreign-born into good Americans. To this concept schools understandably return today when confronted suddenly with the problem of assimilating the stranger, whether he be from a foreign land or from an inferior cultural group (as, for example, migrants from rural and underprivileged sections of the country to areas of a higher cultural level).

Nor should we be surprised to find courses in public school designed to condition young people with respect to the status quo in a period in which conformity in ideas as well as manners and morals is widely accepted by the community as the function of the schools. It is a time when teachers who encourage young people to question established institutions are viewed as subversives. And we find the incentives of scholarship struggling against odds in a society that both dubs and damns intellectuals as egg-heads. When Superintendent Baber in Whyte's *The Organization Man* complains that education in the United States concentrates too much upon the intellectual aspects of education, is he not matched by the expressed convictions of parents to the effect that "the primary job of the high school . . . should be to teach students to be citizens and how to get along with people"?[7]

It is not necessary to read far in John Dewey in order to discover the difference between his conceptions of education and those of life-adjustment education as described here. Or the contrast between his concept of intelligence as exemplified in his little book titled *How We Think* and that represented both in education for adjustment and the "training of the mind."

I have dwelt with some detail upon the sources of life-adjustment education in order to identify its origins more accurately than do such critics as Admiral Rickover and the Council for Basic Education. Accuracy with respect to origin and nature may help us to appraise more wisely its relevance to the needs of today.

If one believes, as the critics of life-adjustment education evidently do, that all young people without exception should complete work in the traditional subjects before undertaking courses in non-academic subjects, be the latter vocational or non-vocational, he will have no difficulty in passing judgment on school systems. Do vocational courses for some students parallel courses in basic subjects? If so, these programs are *ipso facto* condemned. Home economics is reduced to the status of a poor relation in the curriculum, and a course such as one on family relations is evidence of misplaced emphasis in the school quite independent of the character of the student body. Others who believe that the curriculum of each school should reflect in some measure the complexion of the school community and the life goals of a student body find generalization less easy with respect to the quality of education in the United States in general or that of a school system in particular. Similarly, if one accepts the premise that "training of the mind" and attention to healthy emotional and social development are unrelated and can be compartmentalized, he will perhaps agree that the latter may be relegated to secondary responsibility in the school. But, again, for educators more nearly in tune with the findings of modern psychology, it becomes highly important that the school organize its work, curricular and extra-curricular, with a concern for all aspects of development—intellectual, emotional, social. Nor is this concern, when translated into subject matter and its potential relationships to life, as well as to scholarly interests, of necessity identical with life-adjustment education as described by its critics. Rather, it may imply a fostering of critical insight and understanding and a disposition to envisage conditions different from what they are.

Life-Adjustment Teacher Preparation

Life-adjustment education does require, however, professionally trained teachers for its adequate realization—teachers who are thoroughly prepared in the subject matter of their instruction, yes, but who add to this a knowledge of child development and the ability to relate their fields of interest to other fields and to significant developments outside the school.

Unfortunately, recommendations of a different character are today being urged upon boards of education, state and local. These officials are being told that the low estate of teaching results

---

[6] See in this connection W. W. Charters, *Curriculum Construction*. New York: The Macmillan Company, 1923. Also Franklin Bobbitt, *How to Make A Curriculum*. Boston: Houghton Mifflin Company, 1924.

[7] *Op. cit.*, p. 434.

from the nefarious influence of educationists who have succeeded in establishing professional criteria for the certification of teachers. Consequently, a first step in the improvement of our schools is to abolish all requirements for teaching other than a knowledge of subjects to be taught.

CBE Would Reverse Trend

Organizations such as the Council for Basic Education are likewise engaged in a campaign to reverse curricular trends of recent years and to restore the basic subjects to their former status; that is, the basic subjects stripped of their broad social objectives. Insisting, as they do, that the schools, in their attempt to educate the masses, are providing an inferior education for all students and sadly neglecting the gifted, they propose to return to what is essentially a one-track curriculum, a curriculum keyed to the able and to which the less able are to adjust by proceeding at a slower pace and receiving instruction in a somewhat diluted form. This on the assumption that there is but one valid content of an education.

Limitations of space do not permit an adequate discussion in this article of the dangers to American education implicit in both an education for life-adjustment and the program of the basic educationists. I should point out, however, that neither meets the requirements of education today. Life-adjustment education tends to equate adjustment of a specific character to a specific situation with education, and education with the acquisition of specific habits. This neglects both the significance of basic principles in education and the need for resourcefulness and flexibility of response in a world of ever-changing conditions. Basic education, on the other hand, illustrates the tendency of Americans to jump from one extreme to another. It is doubtless true that our schools, in their effort to solve the problems of universal education, have failed to provide adequately for the gifted. But the cure for this situation is hardly found in the imposition of a uniform diet upon all. Rather, it suggests more adequate provision for diversity of ability and interest.

Equally serious is the assumption that the gifted student is of one type, the academically able. Or that the academically able are identical with the future leaders of our society. This overlooks the fact that giftedness is plural, just as leadership in the complex world of today employs many different kinds of ability and talent. Consequently, a school program designed to identify and to educate the gifted as well as the non-gifted should provide a diversified rather than a one-track education.

Finally, we should consider the attractions of a simplified school program for the economy-minded and those of faint heart in their devotion to public education. Such a program particularly appeals to those southerners who wish to secure official recognition for work carried on in meagerly equipped private schools as a substitute for public schools.

But it is not in the South alone that devotion to public schools is at low ebb. Neither on the federal nor on the state level has it been possible in recent years to secure adequate support for public education. Buildings are in disrepair and competent teaching staffs increasingly difficult to recruit. Bond issues are defeated in community after community with alarming regularity. If Americans should, in their attempt to correct the errors of life-adjustment education, accept a concept of the school's task as concerned only with the bare bones of an academic education, they may well deny to American youth their educational birthright.

Light Shed on Teacher Preparation

► As of 1957-58, the average preparation of science teachers in Maryland, New Jersey, and Virginia included 47.4 semester hours in science and 35.6 hours in "education" courses. Mathematics teachers in these states averaged about 23 hours of college preparation in math and 31 hours in education. Over 7 per cent of the teachers who taught one or more classes in math had taken no college mathematics.

These statistics come from a thorough study of qualifications and teaching loads of mathematics and science teachers in these states by the U. S. Office of Education, published as Circular No. 575. Other highlights:

About 39 per cent of the math teachers had not taken mathematics as advanced as calculus.

One-fifth of the teachers received their math training before 1950.

Nearly 60 per cent of the science teachers in the study had all or part of their training in liberal arts colleges and about two in five attended a teachers college and/or a college of education in some university.

Nearly 40 per cent of all teachers in all schools of the sample had no practice teaching in college.

Only 1.5 per cent of the science teachers had taken no college science.

Nearly one-third of the science and/or math teachers had the master's degree.

About one-third of the teachers had an average mark in all subjects of A or B plus; fewer than 10 per cent had an average of C or less. Grades received in education courses differed little from grades in math and science courses.

On Colleagues and Clients

A winner of the Oersted Medal for distinguished college teaching offers sane and pungent comments on pedagogical know-how versus factual know-what; on the compatibility of research and teaching; and on teacher-student relationships.

By **PAUL KIRKPATRICK**

ACROSS the campus from where you and I work there is a school of education, or maybe a department. We *hear* that it is there but we don't visit it very often. We are trying to teach the young and realizing that the job is too hard for us. Probably there isn't a teacher here who feels that he is a complete success. But while we go on with these feelings of partial success there is nearby this company of specialists in the philosophy and technique of the teaching process, and we make no use of them. When we are stuck on a chemistry problem we go to the chemists; if we get beyond our depth in mathematics we know mathematicians who will throw us a rope. Physicists in my home department, on one occasion, were broad-minded enough to seek aid at the department of classic languages, and they came home with their problem solved. In that conference the word "klystron" was invented. But when we are wondering how to educate we do not go to the educationists. Do we feel that they do not have the answers, or do we avoid them so as not to incur guilt by association?

I cannot dismiss this odd boycott, as some apparently can, by declaring that ninety per cent of the educationists are fools led by the ten per cent who are smart rogues. I know some educationists who seem to be as intelligent as physicists and as honest as mathematicians. They do not exalt pedagogical know-how above factual know-what. They don't take pride in producing highly trained but ignorant teachers. They worry about some of the same educational problems that bother me, but with a better background in these areas, they worry better. The best of them will agree that many educationists have been bumptious and arrogant, and that their fast-growing field has suffered from quackery and charlatanry. But unless their whole discipline is fraudulent—which I do not believe—the rest of us do harm to our own disciplines by exchanging epithets with educationists or by pretending that they don't exist. I think that sooner or later teachers of all sorts are going to have to agree that there is some kind of scientific basis possible for what they are trying to do, and I wish we were getting ready for that time now instead of pulling away from it.

Now don't imagine that this pure company is being infiltrated by a disguised educationist. I have muddled along for forty years without the benefit of a course in education, but I am not as proud of my ignorance as most science teachers are. Whether or not the educationists know the answers, they deal with great questions. What is the real nature of the process of learning? How can one train the mind? Can people be taught to think, and if so how do you do it? To what teaching operations are the different types of students susceptible, and how are the various types to be recognized? Everyone who teaches needs the answers, even the man who is a "born teacher," whatever that phrase means. If we do not trust the putative authorities, should we not be doing something else about this need? I think we are in a drifting condition. *The American Journal of Physics* prints much about apparatus but less about how to instill the lessons of the apparatus into the student mind. We print good expository articles on physics as a science but little that is basic about transmitting that science to the customers before us. I am sure this lack is not the result of the editorial policy; it occurs because you and I and the others who write for the *Journal*

MR. KIRKPATRICK *is professor of physics at Stanford University.* *This article is adapted from an address he made before the American Association of Physics Teachers and American Physical Society when awarded the 1959 Oersted Medal for notable contributions to the teaching of physics.*

do not at present know what should be said on these matters.

Now I can almost hear the grumbling in the back row where somebody just said, "When *The American Journal of Physics* becomes a journal of pedagogy they will have to get along without my subscription." I hope I did *not* hear that ancient slogan of the anti-educationists, "All a teacher needs is to know his stuff." People who talk this way are logically as vulnerable as their opponents in the opposite corner who say, or have been said to say, "All a teacher needs is to know how to teach." Let's not do battle with ridiculous weapons. Knowing your stuff is necessary but not sufficient. Teaching is a matter of operations—you do certain things—and the omniscient professor who does the wrong things or does nothing is not teaching. We are not going to find out what the *right* things are, I should suppose, by shallow empirical deductions. We need basic theory and should at least sympathize with honest people who are trying to develop it, even though they could not claim that they now have it ready for our use.

All right, they don't have all the answers. They have a few, and when the fuller answers come I think it likely that they will come to scholars of competence who are looking for them, rather than to those who are contemptuous of the whole quest and of all men who engage in it. I am really commending not a group of individuals but an attitude toward the eventual possibility of finding out how our job should be done, and I don't think we know how at present.

Now a part of the aversion that natural scientists feel toward educationists springs from some fear that educationists may manage to get control of the licensing of college teachers and compel us, or our successors, to undergo training under them. If this were a real threat it would be something to fight against, but I can't see any prospect at all of such a requirement. There is at present no move on foot among educationists anywhere in America to bring this about.

The Proper Base for Selecting Methods

If I were at the start of a teaching career instead of a few weeks from the end of one, I should at least try to base my methods upon rational foundations rather than upon traditional practices of the teaching guild, imitation of my own teachers, or selective adoption of methods that seem to get by.

In accepting this award, I am in the position of the veteran wheel tapper who was tendered a banquet and given a gold watch on the occasion of his retirement after forty years of faithful service. You've probably seen this important employee in the railway station yard, walking along beside the standing train with a peen hammer in his hand and tapping the wheels, listening acutely for the rare cracked wheel which, if undetected, might cause a serious accident. There was one man at the dinner who didn't understand what it was all about, so afterward he sought out the tapper emeritus and asked him, "What was the purpose of tapping those wheels?" The retiring veteran answered, "I don't know. They just told me to tap 'em."

I hope no one collars me after this session and asks the purpose of every teaching technique I have used during these many years. I could not justify them in detail, but I hope that teachers will not always have to proceed in such uncertainty.

Interaction of Research and Teaching

The second group of professional neighbors that I mention today is that of the research people. Of course a research man is often a teacher with his research hat on, but there are many teachers who do not possess such a hat, and there are many research men around our universities now who have no teaching responsibilities. I'm concerned with the interaction of these two *activities* in a university or college, and with how they aid or obstruct each other. This is a fairly modern problem, for research was not uniformly supported by American universities until the present century. Let me say a word about the history of this subject. Today research is so generally accepted as one of the great natural functions—if not *the* main function—of any institution granting higher degrees that the young men here—those under sixty, that is—may find it hard to realize that for centuries universities were just places where teachers taught students. Even in the later nineteenth century eminent presidents Eliot of Harvard, White of Cornell, and Gilman of Johns Hopkins declared that teaching was much more important than investigation, a proposition which at that time was denied nowhere except at the University of Chicago.

But the spirit of research was stirring, and the American Physical Society came to birth right along with the new century. That organizational step was brought about mainly by teachers who wanted to do research, not by the pressures of already abundant research production looking for an outlet. Professor Ernest Merritt, the first secretary of the society, once told me that shortly before each A.P.S. meeting he used to have a hectic scramble getting together enough contrib-

uted papers to round out a program. It's my impression that the present secretary rarely has to do this. At any rate, in the early decades of this century most of the research in physics in America took place in educational institutions, not in the laboratories of industry or government.

Although the *Physical Review* was being written by teachers, it was only a small minority of the teachers who were doing it. This great new function of research in the universities came along slowly, partly because it was expensive and took staff time, but more because faculties included no great corps of trained enthusiasts for such work. Rowland had said, "You don't need money, you don't need time; all you need is to want to do it." But half a century ago all three favoring commodities (money, time, desire) were in short supply. The leading enthusiasts were the young physicists home from Europe with their dazzling German Ph. D. degrees, but they were few in number for a big country.

Here a little and there a little research came into the universities, and it would be ridiculous to claim that it did not compete with the teaching function. It is told that when Michelson was asked how he managed to get so much good research done he replied, "By neglecting my students." (That's a practice that did not die with Michelson.) Now it is the *undergraduate* student who suffers in such cases. I think that close association of an *advanced* student with a strong research man can be highly educational in an unsystematic way, quite apart from any conscious didactic operations. It is an apprenticeship. It was even said at Chicago that the *best* training for a graduate student was to carry water for Michelson. The effect is not precisely teaching, and it is not available in wholesale quantities, but it is good so far as it goes. Some of the greatness of Socrates seems to have rubbed off on his student, Plato, and it was not transferred by the lecture system, for Socrates didn't believe in the lecture system. But it does an undergraduate little good to sit in the presence of a scientist of reputation unless the great man says or does instructive things. This he may or may not do, like any other teacher.

Coexistentialist Propositions

When teaching moved over to make room for research—around 1900 and thereafter—some educators and scientists who believed strongly in both activities tried to play down the mutual interference effects. These coexistentialists were heard advancing three propositions, and I repeat them.

First, every good research man is *ipso facto* a superior teacher.

Second, it is not possible for a non-research man to be a superior teacher.

Third, the partnership of research and instruction is always mutually beneficial.

I don't think that these assertions were inductions from any real observations; they were, I believe, just articles of faith—adopted, not derived. I am afraid the weight of the observations is against them all, but they were attempts—wistful perhaps—to deal with a real problem which is still unsolved: the problem of promoting the mutually helpful coexistence of instruction and investigation in science.

Positive Correlation Far from Unity

Since these three claims may still be heard occasionally, we will take a closer look at them. The first one was strongly worded by President David Starr Jordan, who said, "I very much doubt if any really great investigator was ever a poor teacher." Seemingly President Jordan had not heard of the case of Willard Gibbs, who is said to have failed so completely as a teacher at Yale that there was a movement to replace him. We have all been graduate students, and most of us can remember sitting before at least one honored —and justly honored—research scientist who for one reason or another was unsuccessful in the classroom. Possibly he didn't care for people; perhaps he was just naturally inarticulate; it may be that he was bored with teaching and considered it an unimportant part of a job that he had accepted mainly to be able to do his research. Fortunately, a scholar of this type no longer needs to suffer in the classroom. Not the physics classroom. He can now get a better job requiring the full-time use of his highest talents.

I am not suggesting that there is any negative correlation between effectiveness in research and in teaching, but only that the positive correlation is a long way from unity. The brilliant critic Jose Ortega y Gasset wrote, "I have lived close to a good number of the foremost scientists of our time, yet I have not found among them a single good teacher." To me this is incredible testimony. I have also lived close to some top scientists and I am sure there were top teachers among them, judged according to any definition or test you might devise.

I turn to the claim that a man not doing research, or not eager to do research, can never be a superior teacher. The affirmative argument holds that one never really understands the inwardness

of physical phenomena, the treachery of glib but plausible explanations, never grasps the reasons behind the reasons until he digs clear to the bottom of extant knowledge and then a little deeper. This argument sometimes maintains that book learning is fine if you want verbal knowledge, but research people are doers of the word and not hearers only. The superior teacher should have buried himself in the physical mysteries in order to draw out the truth with eyes, ears, tactual nerve endings, and the sense of smell.

Now I do think that experience in research has improved many a teacher's comprehension of the nature of science and greatly deepened his understanding of specific problems. But science is long, life is short, and research is narrow. There is not time enough to master the whole of physics through direct research experience, and the detailed insight that a man has time to secure in this way will rarely be passed on to his students unless he is giving a seminar in his research specialty. Any teacher of a *general* physics course who devotes more than fifteen minutes of lecture time to his own research may be suspected of egotism.

I am worried about how the intensive research specialist finds time to understand the rest of physics. Nowadays we have a class of bright young Ph. D.'s who have managed to become familiar with the inside of a nucleus but are ignorant of the inside of a voltmeter. As teachers we all need perspective. We need to know where the frontier of physical knowledge lies and how the fight for its expansion is going on in the various sectors. A man who is intensely preoccupied with the tactics of one sector may have less chance to see the whole situation clearly than will an equally earnest and intelligent man who pulls out of the fight and merely studies it from headquarters.

Theorist Vs. Experimentalist

This, after all, is about what the theoretical physicist does. Instead of performing experiments, he reads and thinks and talks about the experiments of other people. Surely we have theorists who have gained an enviable comprehension of physics by this process, and I doubt that you can find an experimentalist so well informed as to feel superior to them all. The method of the theorist—that is, mastering science by reading literature instead of meters—is open to every teacher who lives near a library, to the degree permitted by his mentality, his temperament, and of course his time commitments. If his thinking leads him to formerly unrecognized truths, then he is a research man, but his teaching is benefited whether his study has this by-product or not. The teacher who chooses this method of learning has no reason to feel—I should say—that his colleague who reads meters has a superior pipeline to the sources of enlightenment. To point out that many research men are superb physicists and draw the conclusion that the doing of research *per se* made them that way is to commit a logical fallacy too elementary to dissect before this audience.

Another Axiom Falls

Now a word about the third axiom that I quoted —the statement that the association of instruction and research necessarily benefits both. It is easy to point out that each depends upon the other, for it was research that gave the teacher something to teach, but without the teacher's support research would die out tomorrow for a lack of trained workers. Yet beyond this broad interdependence some individual scientists have found the combination advantageous in their own lives. Hans Christian Oersted, whom we are remembering today, discovered electro-magnetism while in the very act of demonstrating before an audience. Sir J. J. Thomson writes in his autobiography that the bright, inquiring minds of students kept him from settling into fixed mental postures, while their questions sometimes stirred him to think thoughts conducive to discovery. Well, everyone wishes it might always work this way, but does it? I think not. In the life of a university department the interests of research and of teaching are competitors. I don't mean to say that *people* within a department must necessarily engage in controversy with each other in the promotion of these rival activities, though this may happen. I just mean that the activities themselves are in necessary conflict in any department which thus seeks to serve two masters. These activities compete for room space, for the working time of staff members, including mechanicians and secretaries, for funds, and for the control of faculty appointments.

If you will pardon my own unimportant case history, I got into research in the era of love and string and sealing wax. I outlived the string and the sealing wax but love lingers on. In my experience the demands of research and of teaching have been in continual conflict for nearly forty years, and I cannot remember that either function ever helped the other. Many a demonstration would have been better prepared and many a student better served if the urgency of some situation in the research laboratory (and the fascination of it) had not pulled in that di-

rection. On the other hand, the continuous concentration that a research dilemma can demand was often broken up by the class bell. I would have done better at either one of these activities if I had kept out of the other, and I suspect that there are hundreds of scientific men who could give the same testimony. This is not a situation that we can take any satisfaction in but is just one of the facts of academic life.

To get the American universities solidly into research required some slighting of the teaching function, as I said earlier. President Harper at Chicago announced that the promotion of faculty members " . . . will depend more largely upon the results of their work as investigators than upon the efficiency of their teaching," thus reversing the policies of great presidents of the preceding generation. President Harper's declaration seems a wide-open invitation to the faculty to neglect their students, and a justification of Michelson's method. I believe the Harper policy (supremacy of research) is now in effect, practically speaking, in nearly all the large universities of this country, though in some of them the public statement is made that teaching and research are treated as equals. As a matter of fact, presidents and trustees, whatever their statements, cannot control such policies; these issues are managed at the departmental level, where the real work is done and where requests for appointment and promotion originate. Anyway, for two generations now university research has received indulgent consideration and its prosperity has been paid for in part by other university functions. Perhaps that's the only way it could have been established. I don't know. Like an infant industry, research has benefited from certain protective tariffs. Well, it is no longer an infant—in physics at least—and it is in no need of further protection. When D. L. Webster went to Stanford forty years ago he surveyed the university junk yard for raw material before planning the details of his research equipment. Now the same department has in the planning stage *one* research project whose budget may equal that of the entire present university. There was an infant that grew up.

Time To Protect the Teacher?

It does seem that it is high time to swing the protective tariff back from the researchers to the teacher as teacher. We don't need to go clear back to the nineteenth century, but perhaps to a status appropriate to the needs and conditions of our times. First among these conditions is the fact that research in physics now has its cloud of ministering angels, but there are some additional, supporting considerations. The switch to the aid of teaching I suggest is due at the several levels of physics teaching because no one seems to want to teach physics in the high schools, because the instruction offered in colleges and universities is not attracting enough specializing students to meet the public need, because recruitment of well-qualified physics teachers for colleges and universities has become very difficult against the competition of better-paying employers, because universities are unable or disinclined to train teachers for colleges, and because industries are now able to recruit physicists right out of college and university faculties.

Oh, Yes, the Students

Now it seems to me that there was one other category of people that we deal with. Oh, yes, the students. These are our best customers, and I don't see how we could ask for better ones; they crowd in upon us with their immense demand for our product, they pay their money and accept what we give them—most uncritically—and they seem especially pleased when we give them short weight. I mean I know of no case in an American college where the students have protested the announcement of a holiday or where they have organized a demand for longer and harder problem sets. That can't happen here.

I believe that in many universities and institutes we have been taking advantage of the student's poor business sense and giving him less than his money's worth. I am thinking of the institutions of high repute where a part of the teaching—indeed, the most direct and personal part of it—is entrusted to amateur teachers and often to absolute beginners. This is the unmentioned skeleton in the closet of higher education. Most of our students have come up from childhood without ever being placed under the care of an untrained teacher until they begin to meet such in university physics and chemistry laboratories and quiz sections. Uncritical as students are, some of them do think it strange—and they have told me so—that they have had only trained and experienced teachers in the free public schools but some teachers who were complete novices in prestigious high-tuition institutions.

If you think of a laboratory instructor as only a proctor who keeps order in the room where a group of students are pursuing their independent work, then of course you will see no objection to turning the job over to a first-year graduate student. But I see in the laboratory one place in the physics course where student and teacher become acquainted; the place where the teacher can dis-

pense his merchandise at retail or (in a different figure) where he can prescribe for his patients as individuals who may be suffering from slightly different complaints.

There are many teachers here who are quite outside the system I am criticizing, for many liberal arts colleges do not have any graduate students around, and therefore the teachers have to do the teaching. I have long felt that this is a real point of superiority for the four-year colleges, and it may have had something to do with the demonstrated ability of some such institutions to surpass big universities in the preparation of students for graduate training in the sciences. But in some of the colleges one can find the still weaker practice of using undergraduate students (seniors) as teachers.

Teaching assistantships in physics used to be justified as a means of subsidy for the graduate students. It is not certain that the tuition-paying undergraduate would go along with this defense, but it is certain that the graduate student of today does not need this assistance as greatly as did his predecessors. There has been a vast increase in the number of agencies competing for a chance to aid him. Is it too much to hope that the universities will some day relieve the graduate student of his teaching duties, put a better-qualified teacher in his place, and then—in case the graduate student really wants to learn about college-level teaching—do something serious about training him?

But Student Is Really a Client

I have called the student first a customer and then a patient, but I really think of him as a client. We do not impersonally market a product nor do we impose a professional prescription that the recipient is bound to swallow without question. We offer counsel that the client may be persuaded to act upon. If the counsel is to be good, it needs no emphasis that the counselor must be learned and in a state of ever-increasing learning. But getting the client to respond and comply requires a professional relationship that I shall call *rapport*. It is about as important to the teacher's success as is his knowledge or his apparatus. It becomes more difficult to achieve this rapport as enrollments go up. For the master with a few disciples, rapport is easy; for the radio or TV teacher it is impossible. Most of us stand somewhere in between. Rapport means knowing the state of ignorance of the student, and of the class, so that one does not explain the obvious nor yet the incomprehensible. A teacher must sense what goes on in the minds of his students or he will not know what to say to them. Rapport means knowing the student's question as soon as he opens his mouth to ask it. When we are greatly surprised by the results of an examination, finding that the class has done far better or worse than we expected, we stand convicted of faulty rapport. We should have known what they would be able to do. When we are astounded by a student's ignorance we reveal that we have not been on the job, and the teacher who indulges in sarcasm about a student's stupidity is unnecessarily exposing his own.

I Have Standards!

Once upon a time a university known to me invited a learned man to serve as visiting professor, and after a few weeks it became evident, through student complaints, that the visitor's lectures were not going over. The department head then discussed the situation with the visitor and suggested that he adjust his presentation to the immaturity or inadequate preparation of the class. The visiting professor took the suggestion as an affront to his honor, and with a show of dignity he said, "What you ask is impossible! *I* have standards."

Here was a case where, with the highest of intentions, a teacher addressed himself to a class which existed only in his own imagination, and consequently he never achieved any harmonious contact with the real people sitting before him. Ever since that experience that department has checked every candidate for appointment to make sure that they don't appoint another man who has standards. Standards, they will tell you, are something to be kept in the National Bureau.

One might go on and discuss the contacts of the teaching physicist with other groups—administrators, the government, the public—but time would not permit.

Finally, I ask your pardon for the many statements which should have been preceded by the words, "It is my opinion that. . . . " To save time that phrase was omitted, but it does not mean that I have a high opinion of all my opinions, for I find that impossible. When exact scientists voice their views in the debatable areas of the arts or of human relations they need to be guided by the three classic rules for courting a woman, of which, as you may recall, the first is, be bold. The second rule is, be bold; and the third is, be not *too* bold.

None loves the messenger who brings bad news.
—*Sophocles*

Is There a Difference?

Teachers Colleges Vs. Liberal Arts Colleges In Teacher Preparation

By C. M. LINDVALL and CLIFFORD P. HOOKER

IN the current public controversy concerning the adequacy of the educational program in our country, no issue seems to generate more heated opinion than the relative merits of teachers colleges and liberal arts colleges in the education of teachers. A frequent criticism of teachers colleges is that they compel their students to spend too much time on the study of teaching methods. Proponents of this claim go on to charge that graduates of these institutions are too much concerned with a variety of unsound "progressive" teaching procedures in which they have been indoctrinated while studying methods. Such teachers are charged with being more interested in the social adjustment of pupils, in group activities, and in catering to pupil interests than they are in teaching important subject matter. For reasons of this sort, the critics feel that the liberal arts colleges turn out teachers who are likely to do a much sounder job in the classroom.

Of course, the difficulty for the school administrator seeking some guidance in the selection of teachers is that available statements concerning the relative merits of different types of training are based solely on opinion. Little has been done to secure factual evidence on the question. And after attempting to do some actual research on this problem, the writers can well understand one of the major reasons for this. Studying the question is far from simple.

At first glance it would seem to be an easy matter to locate a group of graduates from each of the two types of schools and to evaluate the teaching job that each group is doing. However, if any differences found are to be ascribed to the type of training received, it is necessary that the groups be equated on such other factors as intelligence and personality, length of teaching experience, highest degree held, grade level taught, and school system in which teaching is done. To put it mildly, this complicates the task. The writers soon found, for example, that many school systems tend to draw their teachers largely from one or a few sources, such as a nearby university or teachers college. This made it impossible to get matched samples within more than a few systems.

For reasons of this type, the investigation reported here is based on the study of thirty-eight teachers serving in seven elementary schools in a large school system employing teachers with a variety of backgrounds. Although a much larger sample would have been desirable, the necessity of matching the two groups on other important variables meant that it was necessary to work with the small selected group. The data reported here are based on two samples of nineteen teachers each, with one sample composed of teachers college graduates and the other of liberal arts college graduates. The groups are matched with respect to length of teaching experience, grade level taught, and highest degree held. Because all teachers were serving in the same school system and working under the same elementary supervisor, all were subject to the same basic supervision.

(It was not possible to match teachers on all of the possible variables, of course. The problem of determining the effect of personality and intelligence, for example, would be a research study in itself. We undertook to study differences between teachers college and liberal arts *graduates*, and would be the first to grant that there may be important differences between them that are *not* due to different kinds of training. Perhaps there

MR. LINDVALL *(Xi 837) is associate professor of education, University of Pittsburgh.*

MR. HOOKER *(Eta 2038) is professor of education, University of Minnesota.*

is a certain "type" of student who tends to go to the teachers college, another to the liberal arts college. To eliminate this factor, one would have to match subjects *before* they attend college.)

It was decided that one of the most important kinds of evidence concerning the effect of the two types of teacher education could be gained by actually observing what takes place in the classrooms of the two groups. It was felt that this would provide the most direct and valid approach to the basic question: Is there a difference between the way teaching is carried out by the typical liberal arts college graduate and the way it is performed by the typical teachers college graduate?

To help make observations objective, a guide was used. In it, trained observers recorded what took place with respect to certain key aspects of instruction. The aspects studied are those considered important but which are also somewhat controversial and which have been the target of many critical comments. The observers were doctoral students, who, as a part of their course experience, were required to become proficient in the use of the instrument employed in this study. They received approximately ten hours of instruction in its use and also had six periods of supervised application of the procedure. In all their use of the instrument, the observers followed a specially prepared manual explaining all of the various categories in some detail. All observers watched both liberal arts and teachers college graduates. They were not informed concerning the type of analysis to be made from the results, nor were they given information concerning the background of any teacher visited. This latter step was taken to help eliminate any observer bias with respect to the factors investigated.

A summary and comparison of the results for the two groups is presented in the following sections.

Concern for Pupil Interests

A common charge made against teacher education institutions is that the teachers are too greatly concerned with pupil interests in planning instruction and in conducting class sessions. This leads to the question, "Is there a difference between liberal arts and teachers college graduates with respect to this concern?" To gather data answering this question, the observers kept a record of two aspects of instructional procedure: (1) Concern for pupil interest in the source of subject matter used and concern for meaningfulness of these sources to the pupil. (2) Extent of pupil participation in planning and directing class activities.

Table 1 summarizes the observational record on time used with various resources.

Table 1. COMPARISON OF TEACHERS COLLEGE AND LIBERAL ARTS COLLEGE GRADUATES BY TIME USED WITH DIFFERENT SUBJECT MATTER RESOURCES

Practices Observed	T. C. Grads Per Cent of Time	T. C. Grads No. Time Blocks	L. A. Grads Per Cent of Time	L. A. Grads No. Time Blocks
1. One text, workbook, or teacher lecture sole observable source.	48	(72)	58	(80)
2. Pupils using several books.	11	(17)	10	(13)
3. Books plus limited non-book sources used.	19	(29)	15	(21)
4. Non-book sources used extensively	18	(27)	13	(18)
5. Broad units based on meaningfulness to pupils. Many sources used.	4	(6)	4	(5)

Chi square not significant

Categories were established on the premise that the teacher who is concerned with making lesson content meaningful and interesting to every student will use more than one textbook and will employ a variety of supplementary lesson materials. This table shows, for example, that during 48 per cent of the time that the teachers college graduates were being observed they were using only one source of subject matter. Among the liberal arts graduates this was being done 58 per cent of the time. In each table the figures given in parentheses represent the actual number of time blocks during which a practice was being followed. These were converted to per cent for easy comparison between groups. The original numbers were used in the calculation of chi square, which is a test of the significance of differences between groups. The value of chi square for Table 1 was not significant at the 5 per cent level. It must, therefore, be concluded that there is no real difference between the graduates of the two types of institutions with respect to this aspect of instruction.

The extent to which teachers in the two groups made provision for pupil participation in the control and planning of classroom activities is indicated in Table 2.

An examination of the practices listed should provide a good picture of the meaning of this dimension. The chi square test used with this table showed that the differences between the groups were significant at the 1 per cent level. An examination of the frequencies and per cents indi-

Table 2. COMPARISON OF TEACHERS COLLEGE AND LIBERAL ARTS COLLEGE GRADUATES WITH RESPECT TO PUPIL PARTICIPATION IN CONTROL OF ACTIVITIES

Practices Observed	T. C. Grads Per Cent of Time	T. C. Grads No. Time Blocks	L. A. Grads Per Cent of Time	L. A. Grads No. Time Blocks
1. No pupil questions or suggestions permitted. Teacher dominates.	37	(56)	5	(7)
2. A few pupils make comments, ask questions. Teacher directs activities.	33	(49)	37	(49)
3. At least 50 per cent of pupils make comments, ask questions. Teacher directs activities.	21	(31)	38	(50)
4. Pupil suggestions, planning determine specific activities. Teacher direction.	9	(13)	18	(23)
5. All activities based on pupil suggestions and expressed interests.	0	(0)	2	(3)

Chi square significant at 1 per cent level

cates that the teachers college graduates in this study tended to be more domineering and to exercise greater personal control in the classroom than liberal arts graduates. There was a tendency for the liberal arts graduates to permit greater pupil participation. If a provision for pupil participation and planning is a mark of the "progressive" teacher, it would seem that the liberal arts graduate in this instance, at least, was more progressive than the teachers college graduate.

Concern for Social Interaction

One frequent criticism of the schools is that they are too much concerned with the social adjustment of the pupil. One evidence of a concern for this might be found in provisions for pupil interaction, that is, provision for pupils to work together in planning groups, to help one another, and to exchange ideas.

Table 3 summarizes what was found in the way of classroom practices bearing on social interaction among pupils. It shows that a variety of conditions existed with respect to this dimension and that during about 75 per cent of the total observed time for both groups some provision was made for pupil interaction. However, the differences observed in classrooms of the two groups of teachers were quite small and the chi square test showed that they were not statistically significant. Evidently the type of educational institution which was attended by the teachers in this study had little or no differential effect on practices with respect to pupil interaction.

Provision for Individual Differences

One of the aspects of classroom instruction that has become of increasing concern during the past decades is the need to provide for individual differences among students. A few of the more violent critics of current educational practice have criticized this type of effort as being a waste of time because almost impossible of accomplishment. Among the majority of persons who have taken time to study the problems of the school, however, it seems to be recognized that even greater efforts must be made in this direction. Despite this almost general professional acceptance, individualization of instruction must be looked upon as one of the developments of "progressive" education.

Table 3. COMPARISON OF TEACHERS COLLEGE AND LIBERAL ARTS COLLEGE GRADUATES WITH RESPECT TO PUPIL INTERACTION

Practices Observed	T. C. Grads Per Cent of Time	T. C. Grads No. Time Blocks	L. A. Grads Per Cent of Time	L. A. Grads No. Time Blocks
1. Pupils not permitted to interact in any constructive manner.	26	(38)	24	(35)
2. Occasional pupil-interaction, not encouraged by teacher.	37	(54)	41	(60)
3. Frequent constructive interaction, not encouraged by teacher.	6	(9)	8	(11)
4. Frequent constructive interaction, evidently part of planned procedure.	27	(39)	21	(30)
5. Continual constructive interaction, evidently part of planned procedure.	4	(6)	6	(8)

Chi square not significant

Table 4 shows that, in our study, teachers college graduates were more inclined to make provision in the classroom for the individual abilities of the learners. In fact, the differences between the two groups is substantial, as indicated by the chi square test showing significance at the 1 per cent level.

Perhaps the most accurate statement one can make after reviewing these data is that further research is needed. Obviously, many questions re-

Table 4. COMPARISON OF TEACHERS COLLEGE AND LIBERAL ARTS COLLEGE GRADUATES WITH RESPECT TO ARRANGEMENTS FOR INDIVIDUALIZATION OF PUPIL WORK

Practices Observed	T. C. Grads Per Cent of Time	T. C. Grads No. Time Blocks	L. A. Grads Per Cent of Time	L. A. Grads No. Time Blocks
1. All pupils involved in identical activities.	45	(71)	65	(92)
2. Class in two groups working on two different activities.	32	(50)	24	(34)
3. Class in three or four groups, each working on different activity.	19	(31)	10	(14)
4. Class in more than four groups, each working on different activity.	4	(6)	0	(0)
5. Pupils working on individualized assignments or activities.	0	(0)	1	(2)

Chi square significant at 1 per cent level

main unanswered, while others can be answered only tentatively. As just one instance of the former, is the subject taught or the grade level of the learners the more important factor influencing teaching procedures? In spite of the limitations of this study, some important differences in teaching procedures were noted. The differences were found to be highly significant from a statistical standpoint in two of the four dimensions measured.

Southern Educators Speak Out

► Closing public schools would result in the collapse of democratic society, say thirty-three Southern educators in the first such statement by leaders in the profession from a cross-section of the South. The group, which includes four college presidents and twenty-three education department heads, contends that it is the public school, primarily, which nurtures the American concept of democracy. "How can this ideal possibly live on in a society that abolishes the principal institution established to preserve it?" they ask.

Pointing out that the South is "facing a serious crisis" because of threats to close down schools, the educators note that many groups are supporting preservation of public education. An understanding of the consequences of closed schools, they believe, will help keep schools open. Some of the consequences they list: loss of education for a majority of the children; flooding the labor market with unskilled labor; a rise in delinquency and crime; migration of the most talented to other regions; a lowering of economic well-being.

What's Ideal in High-School Size?

► What is the "perfect" size for a high school? The 1955 White House Conference on Education suggested 1,000 as a figure "beyond which nothing is gained." Superintendents polled by *The Nation's Schools* voted for an enrollment between 400 and 1,200. A similar poll conducted by the NEA pulled 677 out of the statistical hat. Finally, when state education department officers were questioned, nearly two-thirds of those replying checked the 500 and 750 enrollment groups as "the most desirable size to allow for maximum development of a well-rounded program of secondary education." James B. Conant, of course, thinks that unless a high school has a graduating class of at least 100, it is too small to offer a diversified curriculum. So far as costs are concerned, the *School Board Journal* says, "There is not much gain . . . after a school has reached about 1,500 in size."

The new trend toward the "school within a school," found in many newer high schools with enrollments of around 1,200, assumes that the high-school youngster thrives best if he can avoid being thrown into a whirling mass of 1,200 students. Four hundred classmates are about right, its proponents say, so a group of teachers and about 400 students live most of their educational lives in a separate building. A core group of buildings houses central services, specialized classes, labs, cafeteria, library, etc.

Now a report from Cape Canaveral states that the majority of men doing the most important scientific work and holding the most responsible positions were graduated from high school in classes of fewer than forty students. Such inconclusive but suggestive pieces of data should warn educators to be wary of standards that are arbitrarily fixed on the basis of only one aspect of the school, such as enrollment.

The White House Conference

► The Golden Anniversary White House Conference from March 27 to April 1 is concerned with two topics, "The World Around the Young" and "The Young in the World." Some 7,000 participants will be organized into workshop groups of thirty whose work will be analysis of some sixty-eight aspects of topics outlined by eighteen forums.

Participants will include fifty-five governor-appointed state committees, 500 nominees of national organizations affiliated with the conference, and 500 guests from other countries.

The Crucial Disparity

► The most effective source of tax revenue, the federal government, contributes only 4 per cent of public school money, although it raises 69 per cent of all taxes.

—from *What Everyone Should Know About Financing Our Schools*, NEA, 1960

An Early Crash Program

By EDWARD H. REDFORD

LONG ago, when the earth was fresh and green, when tawny lions roamed the forests and myriad fish choked the streams, there lived a tribe called the Yonkis, the richest and the strongest and the happiest in the world. So blessed by the Great Spirit were they that nowhere in their ranks was there to be found either poverty or servitude. Each man had enough for his own needs, and all had time for creative work and rest and contemplation.

The beautiful valleys and hills in which the Yonkis flourished were not entirely responsible for their happiness. Tribal forefathers had early tamed the wild horses which roamed the land and, long before any other tribe, had found that poles tied to the sides of a horse and dragged on the ground behind would transport great loads with ease. With this advantage, leadership in peace and war was gained by the Yonkis, and this leadership was perpetuated by the wisemen, whose responsibility it was to pass on customs and culture to the young and to train succeeding generations for their place in tribal life.

There came a time, in the history of the Yonkis, when someone conceived the idea of attaching a section of a log to a spindle, tieing this to the poles that dragged behind a horse, and mounting a platform on top of the contraption. And then came the word that the Balshis, a rival tribe spread over barren deserts and rugged mountains and lacking all the blessings and refinements of the Yonkis, had learned to make what they called wheels.

The Yonki elders called the tribal chieftains before them and inquired as to what progress they had made in this direction. One chief had just about fashioned a wheel, but he could not develop a means of holding the section of log in one piece as it was rolled along the earth. Another chief had contrived a tire to contain the log, but he could not figure how to fasten it to the poles; and the first chief would not share this secret with him. The third chief had the whole idea mastered; but he could not get any of the right kind of logs, for the second had cornered the market.

When word came that the Balshis had finally developed wheels and a cart[1] the Yonkis became terrified. They could see how the Balshis could take all their trade, could outmaneuver them in war, could even win the race into the unknown space beyond the mountains. Amid wailing and gnashing of teeth, the Yonkis concluded that they had to imitate the procedures of the Balshis. The Yonkis had trained their young to believe that each individual is important. The Balshis had trained theirs to believe that they were servants of the tribe. The Balshis had invented the first cart. *Ergo,* the training program of the Yonkis had to be modeled after that of the Balshis.

Accordingly, the elders called in the wisemen and charged them with having failed to produce wheelmakers. No longer were the wisemen to be permitted to lead their students into the study of tribal history, into speculating on why we are here on earth, into the appreciation of beauty. "The wisemen," said the elders, "hereafter are to train only for proficiency in wheelmaking. Our world is ended if the Balshis develop spokes and axles before we do." Faced with this ultimatum from the elders, the wisemen began to spend more and more time on the potential wheelmakers and less and less on the others.

MR. REDFORD *(Delta 654) is associate dean, Oakland City College, Oakland, Calif.*

[1] Inscriptions found in prehistoric caves seem to indicate that, because of the tracks it made in the ground, the contraption originally was called *rut*nick.

The big wheelmakers[2] had early discovered that learning makes people restless and unwilling to accept domination, so the wisemen soon were restrained even from passing on the story of the golden days of yore. And so all but the most gifted wheelmakers were removed from the influence of the wisemen.

In the new order, wheelmakers became more revered by the tribe than the wisemen or the chieftains or even the elders. Where once each Yonki looked on all his fellows as brothers, the wheelmakers now became a class apart. At first, the unlearned masses struggled against their lot, but as the relatively few wheelmakers became more and more powerful the majority sank deeper and deeper into the despair of slavery. The rich became richer, and the poor, poorer.

And so the years went on, power corrupting the wheelmaker class and the people no longer caring to exist. There finally came a time when the doomed Yonkis[3] had lost all pride in and love for their nation and the tribe had not the strength, even had it the will, to fight for itself. The Greek stoic, Epictetus, has given us a fitting epitaph for them: "The State has said that only freemen shall be educated, but God has said that only educated men shall be free."

[2] Or *big wheels*, as they came to be called.
[3] Could this be the origin of the expression, "domned Yonkis"?

Agreements on Curriculum

The author thinks there is over-emphasis on disagreements in education, particularly in the curriculum field. He presents here some evidence to show that curriculum "authorities" agree on certain basic principles.

By PAUL R. PIERCE

HOLDING that there are greater grounds for agreement than for controversy regarding the school curriculum, I was moved this past year to sample the views of ten curriculum leaders. It was not so much that lay citizens were making criticisms—these are largely the result of forty years of professional controversy—as that neglect of fundamental curriculum principles was depriving great numbers of children and youth of the purposeful and balanced educational program to which they, and through them American society, are entitled.

Selecting my curriculum leaders proved somewhat like naming an all-star athletic team—one wonders afterward if he could not name another team equally as good. With no such specifics as batting averages or ground gained, I used such yardsticks as the prospect's record as a teacher of functional theory and practice, his contributions to research and experimentation, and his effectiveness in working with school staffs. While extent of writing—a current mark of greatness—was not given particular weight, it turned out that each authority eventually chosen had written at least two books. Leaders included in the final list were not committed to an exclusively progressive or conservative viewpoint, were representative of various areas of the country, and were all currently active in curriculum work. With the exception of one who was on an European mission, all of those originally invited generously consented to participate.[1]

Since neglect or unawareness of fundamental principles is largely responsible for current curriculum uncertainty and because wordiness is a bane of our professional discussion, my method was simply to have the participants check "broadly

MR. PIERCE *(Zeta 658) is an educational analyst and writer now engaged in preparing an American educational history for Houghton Mifflin and in revising his book on elementary education. His most recent work, written with Herold Hunt, Eliot Professor of Education, Harvard University, is* The Practice of School Administration *(Houghton Mifflin, 1958). Pierce lives at 435 N. Grant, Lafayette, Ind.*

[1] To encourage frankness, anonimity was assured all participants.

agree" or "disagree" after each of ten brief statements or postulates. Comment was optional. When the responses were received, it was noted that all checkmark spaces were utilized and all participants except one made additional comments, a few writing letters for this purpose.

Statements and Responses

One of the premises on which my selection of statements was based was that agreements are more readily reached in large areas than in small specialized elements. Indeed, our emphasis on special portions of the curriculum to the relative neglect of its totality and the large areas has been partly responsible for confusing controversies of the past half-century. Over-all frames of reference have been criticized as leading to overuse of the deductive method or as being undemocratic, though the success of the Ten Commandments in religion or the Preamble to the Constitution in government scarcely supports such assumptions. In education, agreement in large areas has perhaps been best illustrated by Roy O. Billett's investigation showing that so-called controversial and contending procedures of the project method, Morrisonian unit, and various laboratory plans are, after all, essentially the same thing.[2] Guy T. Buswell deals in large elements in citing acceptance "by and large" of previously controversial views such as, "that a child is an organic whole," "that he learns what he does and by doing it," and "that, in general, the activity of the learner must be free rather than dictated by authoritarian control."[3]

Our ten problems or statements are accordingly concerned first of all with the total curriculum and its larger spheres. Owing to space considerations, the problems and a discussion of responses to them can be presented only in greatly abbreviated form, as follows:

> *We have a broad fundamental theory of the nature of the curriculum.*

To a surprising extent, the view prevails in our profession that there are many authentic approaches to curriculum making, and that one is virtually as effective as another. Our participants, however, mindful of the results of curriculum investigations and experimentation, clearly affirmed in their responses to this and subsequent statements that there is an established procedure for developing the curriculum of a school or school system. Nine of them agreed with the above statement. The one who did not cited the existence of differing current opinions as his explanation.

Directly related to this and largely interpreting it was our succeeding statement:

> *The good life, based on such concepts as American social values and Judaic-Christian morality and undergirded by biological, psychological, philosophical, and sociological sources, in the foundation of the school curriculum.*

Here is indicated what is to be learned, together with the types of scholarly sources for initial stages of its processing. Again, nine of the participants agreed with the statement. The one who marked it "disagree" gave as his reason that the good life should be regarded as the basis of curriculum objectives rather than of the curriculum itself. Conceding that this might seem inconsistent, he expressed his feeling that we have been in error in assuming that a curricular objective necessarily implies a corresponding body of content or activity aimed directly at it. These valid comments are illustrative of our inability to reach broad agreements respecting fundamental issues because special elements are not reconciled. If the objectives are drawn from the good life, the learning activities which should be flexibly rather than categorically used will be likewise drawn from it.

> *The scope and large objectives of the good life are expressed or outlined through such classifications or areas as the "Seven Cardinal Objectives," "Ten Imperative Needs of Youth," and major functions of living.*

Two of our curriculum authorities who approved this postulate were critical of the Imperative Needs, saying they inadequately define the good life. Another approved, with the qualification that the areas of living be used as "criteria" for making plans, decisions, and judgments. The single dissident held that the classifications are too broad to be considered as purposes—that they represent areas in which educational attainments are put to use. I would comment that our staff as Wells High School, Chicago, found the Imperative Needs to parallel closely the Cardinal Objectives, and like the school's own major functions of living, they serve both as criteria and as areas for putting learning attainments to use. What is important is that school staff and students work flexibly and purposefully in all major areas of successful American living.

---

[2] *National Survey of Secondary Education*, Bulletin 1932, No. 17. Washington: United States Office of Education, pp. 125-29.

[3] "Editorial Comment," *Elementary School Journal*, XLVI (January, 1956), p. 41.

Recently, a PHI DELTA KAPPAN article[4] suggested a new list, "Ten Imperative Obligations of Youth" based on the Imperative Needs. In my opinion, no additional list is required. The Imperative Needs, put in simpler, more concise terms, can serve students and staff alike. For school uses, such categories are at once objectives, criteria, obligations, values—areas of attainment for all. Why NASSP has not continued its original promising emphasis on these objectives is difficult to understand.

American educational history clearly supports our participants' endorsement of the above statement. It records the clear-cut genealogy of curriculum principles which began with Spencer's knowledge *categories* (1859), Bobbitt's *Curriculum* (1918), and the *Cardinal Principles* (1918). This genealogy extends through the North Central Association's Goals (1933), the Educational Policies Commission's Purposes (1938), and the Ten Imperative Needs of Youth (1944). It continues into current years with the classifications of Stratemeyer *et al* (1947, 1958), the Chicago Public Schools (1949), and the Russell Sage Foundation (Kearney, 1953; French, 1957). Numerous similar lists of areas or functions of living could be cited, including those of professional organizations, state department committees, and such individuals as Thorndike, Dewey, and Charters.[5] In 1937 O. J. Frederick and L. J. Farquear made a study of thirty-eight authoritative classifications of human activities and developed a composite list of nine such objectives.[6] The findings of these historical studies likewise provide important underpinning for our subsequent basic statements.

> *For curriculum purposes major classifications or areas of living are analyzed and broken down into living-learning experiences.*

Activity analysis as a curriculum procedure has been attacked at times by critics as being "mechanistic," though why availability of source materials obtained by analyzing life experiences should induce mechanism more than do dictionaries and encyclopedias is difficult to perceive. Use of these lists evaluatively would measurably help administrators to resist unwarranted lay (and sometimes professional) pressures, as well as assist them in providing adequate curriculums for all pupils. Such lists would scarcely justify the wasteful policy of four years of one foreign language in high school or foreign languages in the elementary school. Fortunately, the role of analysis and classification for scholarly investigation is increasingly recognized and utilized throughout our profession. All ten curriculum masters approved the procedure.

> *The lists of living-learning activities are drawn from as source materials (objectives, experiences, etc.) for courses of study, extraclass affairs, and beyond-school learnings.*

This processing (and climaxing) element of curriculum-making received full affirmation.

Evaluation of and comment on the remaining five statements which deal with administration of the curriculum showed somewhat less, but substantial, approval in comparison with the first five, which were concerned with the nature of the curriculum. In much abbreviated form, they were as follows:

Statement	Broadly agree	Disagree	Undecided
School programs having only conventional subjects and extraclass activities must be considered "fractional" or "partial" curriculums	6	2	2
Bobbitt's "activities," Stratemeyer's "persisting life situations," "core experiences," etc., are essentially the same and may bear a common label	7.5[7]	2.5[7]	0
Social amenities should be a regular part of the curriculum	7	2	1
School curriculums should be cooperatively outlined in guides for flexible use by teachers	7.5[7]	1.5[7]	1
The curriculum should extend for all pupils (many in community college), through junior college level	9	1	0

[7] Split numbers due to conflicts between checkmarks and comment.

Many writers consider the meager program suggested in the first of these statements a bona fide type of curriculum, thus giving support to the opinions of Basic Educationists and enhancing its

[4] Robert E. Horton, *Phi Delta Kappan*, XLI (December, 1959), pp. 100-101.

[5] See John S. Brubacker's tabular comparison of the Spencer, Bobbitt, and *Cardinal Principles* classifications in his *History of the Problems of Education*, McGraw-Hill, Inc., 1947, p. 297. Also Harap's chapter, "Organization of the Curriculum," *The Changing Curriculum*, Joint Committees on Curriculum, D. Appleton-Century Company, 1937.

[6] *Journal of Educational Research*, XXX (May, 1937), pp. 672-79.

respectability in eyes of parents and other citizens. To eliminate such programs is at the very root of rural district reorganization. One of our judging colleagues regarded any school's program as being a curriculum in the light of that school's objectives; another regarded the program indicated as being unworthy of being considered even a partial curriculum. In our view, if a school, whatever its size, does not deal to the extent of its potentialities with the essential experiences of all major areas of living at each semester or year level—which a traditional program does not do—its principal and staff are not living up to their professional responsibilities to pupils and citizenry.

Behind the "common label" proposition is the purpose of reducing conflicts or rivalries and effecting consequent understanding and economy through elimination of semantic differences. "Social amenities" (going much beyond boy-girl relationships), our curriculum authorities largely agreed, are of such relevance to pupils and parents and of such relationship to vocational as well as recreational welfare of the former as to justify their inclusion in the common program.

Educational History Disregarded

Seriously handicapping the establishment of common understandings and consequent benchmarks in American education is our tendency to regard anything a few years old as useless or outmoded and to bypass it with something newer, even though "new" in label only. Superintendent Kenneth E. Oberholzer, writing recently in the *Saturday Review,* criticized Henry Steele Commager's paper on a historian's view of secondary education because it omitted reference to certain reports, one of them the Report of the Commission on Reorganization of Secondary Education. Despite its date (1918), this 32-page report, best known for its "Seven Cardinal Principles," set up benchmarks with high potential for guiding curriculum development throughout the ensuing years. Attention to its content would have prevented much of the waste in controversies pressed by the Progressives, Essentialists, and current set of Basic Educationists, because it dealt in balanced, well-rounded ways with fractional elements for which they later claimed exclusive credit. Its provisions also merit a full re-reading especially in comparison with the Conant pronouncements, in the light of our current social and educational needs. Much confusion would have been avoided had the Educational Policies Commission added new objectives demanded by social change to the concisely expressed Seven Cardinal Objectives instead of issuing its four "Purposes" and Ten Imperative Needs—the former too condensed and the latter too lengthily worded for ready use by schools.

What happened to the Cardinal Objectives illustrates vividly how various types of pressure, opportunism, and competitive proposals have measurably replaced professional discussion based on educational research and practice. Teachers in the Twenties and Thirties were confident of their major goals; today's professional personnel are confused regarding major achievements of the schools, permitting pseudo-educational "experts" to keep them on the defensive at points of the latters' choosing. I recall hearing Henry C. Morrison say that the public schools deserve as much credit for improving American health as does the medical profession. What do our people know of the schools' great services in citizenship, vocations, home membership, and other significant spheres?

A striking recent evidence of the neglect of history in the urge to do something new has been the proposed national curriculum. Here we have the professional loss involved in numerous meetings and writings on a proposition patently contrary to the principle of local autonomy in American democracy and education.

The Road to Common Understandings

Despite its very apparent limitations, our brief inquiry confirmed the assumption that bases for agreement far outmeasure reasons for controversy in fundamental aspects of the curriculum. The agreements are not the outcome of *laissez faire* drift nor yet speculative theorizing; the responses of the ten curriculum leaders are in harmony with research, school practice, and discriminative thinking. How they can be further developed and made known to all educational personnel is a clear challenge to our profession. Steps to achieve this goal include:

1. Working on common understandings regarding the totality and large elements of the curriculum (e.g., major functions of living), thus facilitating concurrence in constituent items where desirable. This principle might well be extended to teacher training, with work in depth on large competencies replacing current proliferated offerings.

2. Focusing attention on common and related elements in research and pioneering school practice, discriminately comparing results after the examples of atomic and medical explorers. (A recent "professional" review of curriculum research made no reference to the comprehensive analysis of Stratemeyer and associates.)

3. Basing study chiefly on the solid work of the schools rather than on top-level conferences and writings; avoiding university control.

4. Giving attention to developmental as well as current aspects of continuing problems—not disregarding tentative landmarks nor threshing over the old under the illusion of *new* labels or proposals.

5. Working consistently and cooperatively to establish foundation stones upon which current and future understandings of American education can be developed and extended.

Promising Practices in Education, II

Part II of a two-part article based upon an address made at Phi Delta Kappa's 27th Biennial Council

By **ROBERT S. GILCHRIST**

I WOULD like to comment on promising practices in classroom methods. I have a feeling that even after we have arranged subject content to our liking, and after our evaluation program is developed to take in total environment and total behavior, we aren't necessarily meeting the needs of these times.

Individualization

We ought to admit it. As much as we talk, we haven't really been providing for individual differences. By and large, our elementary schools are rigidly graded and promotion is continuous. Our secondary curriculum still runs on a 50- or 55-minute bell schedule and a credit system which says that you have a high-school education when the transcript shows sixteen units. But the assumption back of these ideas has been forcefully challenged, and few will defend it any longer.

If we believe in individuals, in their potential as citizens—if we recognize their differences and try to do something about them—we will not put all youngsters into the strait jacket of the traditional elementary-secondary school organization.

So what do we find taking place in the schools? For one thing, we find the nongraded elementary concept, as stated by Goodlad of Chicago and Anderson of Harvard in their recent book [see "Books for Leaders," this issue]. I wish I had time to relate to you the contents of letters from some fifteen elementary school principals who say, "This is one of our most promising practices."

Briefly, the ungraded primary or primary unit concept is this: in skill development a youngster ought to proceed at his optimum rate. Therefore it is perfectly respectable in a first-year room if, at the end of a year, some child is only half-way through first-grade materials and another is through the traditional second-year subject matter. If they are both emotionally and socially mature enough to be in the first year, they both stay in first year, but they proceed at different rates in terms of their growth potential. The good schools that are trying the ungraded primary realize, of course, that it isn't the whole answer; that along with skill development proceeding at an individual's own rate there must be many group experiences, for individual growth depends on group experiences. It is not an either-or proposition.

I have had difficulty in explaining the ungraded primary plan to my lay friends. When I say, "In this primary unit plan no youngster ever skips a grade and no youngster ever repeats a grade," they think I have gone berserk. "How can a child get through school a year sooner if he doesn't skip a grade?" they ask.

If he is socially and physically mature, a bright and fast-developing youngster can master the primary skills of the first three years in two years. A teacher can advance him rather rapidly through

---

MR. GILCHRIST *(Alpha Mu 3) is superintendent of schools at University City, Missouri. This is Part II of an adaptation and condensation of the address he presented at the 27th Biennial Council of Phi Delta Kappa, Columbia, Missouri, December 29, 1959. Part I appeared in the February* KAPPAN.

the various levels of skill development. If it seems desirable, he can be shifted to a room of children who have been in school a year longer than he has without his skipping any content of consequence. (Especially at the primary levels, child development is the focus and content doesn't have the halo we tend to give it in later years.) Some of the children in the older group will be at the level at which he is learning, so he will fit in and he will be ready for the usual fourth grade at the end of two years in the primary classrooms.

The major advantage of the nongraded concept is not that it permits acceleration or retention without skipping or repeating. Its real strength is that each child can learn at his own best developmental rate rather than being rushed or marking time. Most children will still stay in school the same number of years.

It is a little harder to choose a single outstanding development in methods at the secondary level, but if anything there is a bigger ferment there. First, of course, is the guidance area. Dr. Conant has convinced the American people of the need for more guidance in our secondary schools. He emphasizes the need for the technically-trained guidance person. I would like to stress the importance of having teachers who know children intimately and who know the parents. A few educators are insisting that a child has a right to be known by some faculty member. Some schools are striving for this goal.

A 'Home Base' for Secondary Student

A development in methods to implement this concept would give the child a "home base" in school and a home base teacher. The idea is propounded by two Californians, Charles W. Bursch of the State Department of Public Instruction and John Lyon Reid, a San Francisco architect, in *High Schools—Today and Tomorrow*.[1]

These men find they must deal with curriculum as they discuss school buildings. What they say is consistent with what Kim Wiles and Franklin Patterson propose in an ASCD booklet, *The High School We Need*.[2] I predict that the high school of the future will have basic rooms in it with basic teachers. Each pupil will then have a "home plate." Bursch and Reid spell out what that home plate is. This will sound a little wild unless you have read the book. They say each youngster deserves an office just as much as his dad does. Going to school is business to him. It should be serious business. So they give him a little partition-type office.

About fifty of these offices constitute a suite, and the students' basic teacher works in that suite with them. If it is a three-year senior high school, the basic teacher and those fifty children go through high school together for three years. The teacher will probably teach these children in some areas of their general education. He will know the parents of all these children. He will help the students plan summer trips or help them get summer jobs. He will be their guidance officer, the person who keeps them on the track, a central and continuing influence in the establishment of individual values and goals.

You see, this illustrates what Will French once said to me, "We need a revolution in secondary education, something comparable to taking the engine from the front end of the car and putting it in the rear"—as Chevrolet has just done with the Corvair. This concept of secondary education is a radical shift. In it you build a secondary program around the goals and aims of an individual, arrived at by each pupil in cooperation with his parents and his basic teacher. The youngster goes out to the laboratories over the school and learns. The difference is that when he goes to science he knows why he is there. He doesn't simply have a kind of a blind faith, along with his parents, that if he takes physics for a year he is going to have a year of physics education.

Another development is the "little school" movement. Many of you live near some district that is divided into little schools. There are examples in Azusa, California; Fairfield, Connecticut; Syosset, New York. This concept is a recognition that we should not lose secondary school children in a great mass of humanity.

There are many new and different specific programs related to or affecting methodology. The advanced placement program, for example, recognizes that there is nothing sacred about the typical high-school curriculum. Some students ought to be having experiences beyond it. As another example, some schools now offer algebra in the eighth grade to some of their youngsters, and others are considering the "unified math" which is proving successful at the university level. In this approach students learn elements of algebra, geometry, and advanced mathematics as they solve increasingly difficult problems which require several types of math in their solution. Developments like this are breaking down the stereotype of secondary education.

Another development is the science seminar.

---

[1] Charles W. Bursch and John Lyon Reid, *High Schools—Today and Tomorrow*. New York: Reinhold Publishing Co., 1957.

[2] ASCD Commission on the Education of Adolescents, Kimball Wiles and Franklin Patterson, *The High School We Need*. Washington: Association for Supervision and Curriculum Development, 1959.

Out in San Francisco at the Polytechnic High School there is an electronics lab that industry helps support. Youngsters work on science there after school, and they go in on Saturday and in the summer. At Cranbrook School, a private school near Detroit, arts and industrial arts labs are kept open after school hours. Doubtless some other schools have similar programs.

These developments illustrate the fact that an old concept is giving way, and I am glad it is. I refer to the notion that what you learn has to be something in a fixed, rigid curriculum, and that you do your living outside of the places where you do your learning.

Summer sessions are developing rapidly, too. This means we can no longer think of educating all youngsters in so many neat nine-month packages. If a student goes to a few summer school sessions, he may graduate a year early unless parents and school people decide that he isn't mature enough and help him understand that he ought to enrich his program instead of accelerating.

I would say in summary that both at the elementary level and at the secondary level there is a pronounced trend toward individualization of education. I feel very optimistic about this trend, for it harmonizes with what we know about individual differences and with our concept of the dignity and worth of each youngster.

I want to mention a danger, though. Grouping plans are widely adopted, as you know. You aren't in style any more unless you group, and grouping extends down into the elementary school. Several elementary principals say that this is one of their "promising practices."

The emphasis on education for the gifted has given impetus to the movement. I think that the Evanston, Illinois, Elementary School District #65 has a good answer for the advocates of grouping.[3] Research conducted in the Evanston system shows that grouping may increase achievement, but it also indicates that if you group only part of the day, three periods for an hour-and-a-half a week, achievement also increases; or if you just leave children heterogeneously grouped and work at treating the students as individuals the achievement will still increase!

The important thing is to keep your eye on the individual. We people in education are pretty busy. When we devise an organizational answer for a problem we tend to conclude that we can forget about it. I am afraid that when some of us do a little grouping, especially if we establish multiple tracks, then we feel that we have the total answer. Grouping and tracking may be all right if they are the best thing we know how to do at a given time in taking care of individual differences—so long as we remember that the individuals are still different. You can't eliminate differences by grouping, no matter how hard you try. You may make some difference factors more manageable. The big job, however, still remains. Individuals within each group must be treated as individuals.

[3] Vera V. Miller, "Education of the Gifted," *American School Board Journal*, September, 1959.

Team Teaching

The next development in methods I would like to discuss is team teaching. When I attended a recent meeting at which it was discussed, I will have to admit that I took a rather dim view of it. It sounded as if someone was trying to sell us a bill of goods involving larger classes. But I now think there are some values in the concept of team teaching that we must respect.

You know the booklet that J. Lloyd Trump has written, called *Images of the Future*.[4] I can't accept everything in this book. I'm not asked to do so. I think it is good that we have the kind of experimentation and theorizing it reports.

Let me give one illustration of the team teaching idea. Up in Norwalk, Connecticut, they are experimenting at two grade levels by putting the children from three classrooms in a unit, using the space ordinarily used for three classrooms but with a different staffing setup which costs about the same amount of money. Where there were formerly three teachers paid on the basis of the same salary schedule, there is now one master teacher or "team leader," one regular or "cooperating" teacher, and one non-certificated aide. The master teacher receives considerably more than was formerly paid. The regular teacher also receives somewhat more. The aide is paid a clerical salary. The experiment is intended to test whether the children are getting as good an education, or better education, with the same expenditure of money.[5]

Many elementary schools are trying other plans with some of the same elements. A central theme is that we must have a higher ceiling for our career teachers, and that not all teachers can be career teachers.

At the secondary level there is even more team

[4] J. Lloyd Trump, *Images of the Future*, Commission on Experimental Study of the Utilization of the Staff in the Secondary School, appointed by the National Association of Secondary School Principals and supported by the Ford Foundation, 1959.

[5] Norwalk Public Schools, prepared by Bryce Perkins and George Prescott, *The Norwalk Plan: A Study Designed to Establish New Careers for Teachers*. A first annual report to the Ford Foundation. The Norwalk (Conn.) Board of Education, 1959.

teaching experimentation. Evanston is doing quite a bit of it. For instance, in biology the Evanston High School has ninety-six youngsters divided into A and B groups. Once a week, at least, all ninety-six are together. About twice a week half of them are in a lecture section. There are then two other sections with about twenty-two people each in lab groups. There is some time when still smaller groups are with individual teachers. Again, the goal of the experiment is to discover whether, with the same amount of outlay, you can do a better job with team teaching.

Actually, three goals are being tested in team teaching. One is to see whether there are some things that can be taught just as well in a large group. I am personally convinced that a social studies teacher of my acquaintance can give better lectures on certain phases of history than any one of his colleagues who are younger and less experienced. He is a master teacher. I would go along with the notion that this one man might talk periodically to all students on certain selected subjects where lecturing might be the best method.

The second goal is to see if there are special skills of teachers which can be used better than we traditionally use them. Maybe there are some teachers who are especially good at remedial work —English teachers, for instance, gifted in helping youngsters with speech difficulties.

The third goal is to see whether children with different achievement and ability levels in different aspects of a course can be regrouped in terms of different phases of the activities of the course.

We are going to have to watch these experiments closely. It could be very dangerous if team teaching merely developed the notion that through the lecture method and through paper-and-pencil testing we can teach people effectively in larger groups. We all know that there are some outcomes that cannot be tested with standardized tests. Many of us are also firmly convinced that children need firsthand contact with teachers in individual conferences and in small-group situations. But if there are implications for better utilization of staff we should make the most of them.

Electronic Aids

There is a third area in methods that I can discuss only briefly; this is the use of electronic aids. Here is really one that is "hot." We are all aware of the stratovision experiment, in which an airplane over Lafayette, Indiana, will send out televised programs which can be received in the schools of six Midwest states. This has broad possibilities, but we must always judge every TV program to see that it is more valuable than the experience it replaces. In another example, out in Nebraska, there is a less spectacular project which seems to be a good thing. Television carries high-school subjects to little hamlets in Nebraska from the University of Nebraska, where the project is sponsored. A youngster can in this way take an advanced science course with a teacher who may not be thoroughly competent in science.

Without discussing all the different aspects of television and radio instruction, and without enumerating the many real uses and advantages of the new learning machines and language laboratories, I would like to echo something said recently by William Alexander of Peabody, president of the Association for Supervision and Curriculum Development. He suggested that if we are smart enough to utilize automation and electronic equipment where it is appropriate in large groups, and where it helps in providing a variety of experiences for different individuals, if we capitalize on these new developments for good ends, then we can free ourselves to work with children and provide genuinely individualized education. But if we somehow forget about the human element, the need in teaching for a warm, friendly child-adult relationship, then these new developments will not be good for education.

Curriculum Development

In closing, I want to discuss two related areas. I have talked about curriculum. I am convinced that unless we have really dynamic programs of curriculum development under way in our school systems, education cannot move forward as fast as these times demand. I am convinced that the classroom teacher has to be involved in curriculum development. True, he has to work with the people in the school system who do not teach classes, and with the college professors, the state department leaders, and others. But we can't get along without teachers in planning the curriculum —not if we want to plan it in terms of children's growth and development, and have it tailor-made for the needs of individuals. Therefore I believe that each teacher has to be engaged in an appraisal program.

Each teacher each year needs to have his goals pretty clearly in mind. He has to propose what to do during the year in order to achieve those goals, and then he has to carry on an evaluation program by which he finds out how well he has been achieving them. The principal and the supervisor and the superintendent and the rest of us should help the teacher expedite this process of appraisal. Sometimes a weakness discovered in this process can be corrected by development of a new se-

quence in social studies; sometimes an in-service education course in mathematics will fill a gap. Whatever it is, this is a sound procedure for determining our curriculum development and instructional improvement programs.

I am worried that there isn't enough curriculum activity taking place at the local level. I think we are to blame if we don't identify this fact and do something about it as fast as we can.

What can we do? Well, obviously you can't develop the curriculum while you are teaching children. In some places teaching load is going to have to be lightened. I notice that in Phoenix, Arizona, the teaching load of an English teacher is being pared down from 158 to 125 in a two-year period.[6] This change is to help English teachers do a more intensive job in helping pupils improve their writing skills. It is in the direction of one of Dr. Conant's recommendations.

Beyond lightening teacher load, perhaps we can carry on some curriculum work through released time. But in the main children ought to be in school during the school year. So I think we have to come to recognize teaching as a profession which demands career people who work the year around, with a month's vacation plus Christmas and Easter. There are systems doing this. The Rochester, Minnesota, schools have done it, and have made revisions when some parts of the program weren't working too well. Now they have what they feel to be a pretty solid plan, where teachers who wish to do so and who are qualified are on eleven-month contracts.[7] They teach summer sessions, perform educational services, or engage in curriculum development activities which require more time than is available in the school year.

A month-long curriculum workshop for the staff of Lakeview High School of Decatur, Illinois, during the summer of 1958 was reported by the NASSP. "During a busy school year, it is impossible to do the kind of planning which was done in the workshop," reports David Beggs, assistant superintendent.[8] I am sure he is right.

Pittsburgh has been doing a similar thing. There seem to be many systems where it is said, "Yes, as soon as we can identify real jobs to do so that there is no boondoggling we will employ as many teachers as it takes to do these jobs."

I personally believe that we need career people in every classroom who are also master teachers. I don't think that we will get them in the near future. Not everyone will be that kind of a teacher, or even want to be. I still am very thankful that we can employ a homemaker who says that she will put in a good day's work, but she needs all summer at home. She cannot do some of the things that you need to do in order to become a full-fledged career teacher. It is only reasonable that such a person get a good salary for the job that she does, but we must go higher for career teachers. Therefore I believe we are going to have to move into salary schedules that have a higher ceiling for career teachers and also a longer school year. We must also become more clear on just how effective automatic salary schedules are—where teachers receive advancement without evidence of successful teaching.

I realize that I am in a very controversial field here, and if I asked for a show of hands I would probably be outvoted, but I really believe that we have to go into this for keeps. We must make teaching a career and a profession, in which teachers become expert in the problem of child development, know the demands of living which these children will meet in the future, and then provide classroom experiences which give promise of developing pupils into the kind of citizens America needs.

Communication

We must be more articulate, as educators, if we are going to give leadership to education. We must be able to talk with our citizen friends, helping them clarify their thinking about the kind of schools they want for their children.

I should like to include in my list of promising practices the elementary schools whose teachers wouldn't think of having only written communication with parents. They have *conferences* with every parent, and they are on the right track, I am sure. The more secondary schools that do this the better. Sitting down in a face-to-face relationship with parents, discussing the problems of a given child who is dear to those parents and whom the teacher knows well—that must be the heart of our communications program with citizens.

But we must do more than that to communicate adequately. We have to make ourselves clear with service clubs and with union groups; we have to make it possible for the newspapers to tell the schools' story accurately and readably; we have to utilize television and radio stations.

The job is a big one. If in 1970 we should happen to be back together, I am sure that you

---

[6] Annual Report of the Superintendent of Schools, Phoenix Union High Schools and Phoenix College System, Phoenix, Arizona, 1958-59.
[7] Rochester Public Schools, "The Summer Program: General Policies and Regulations." Rochester, Minnesota, 1958.
[8] David W. Beggs, "Utilizing Professional Ability During a Summer Month Contributes to an Improved School at Lakeview." *Bulletin of the NASSP.* January, 1959.

will agree with me that we would be proud to say, "Yes, as Phi Delta Kappans, through sponsoring needed research, through exerting high-level leadership, through being of real service in our respective communities, we have accomplished some important objectives. First, we have seen that our organized curriculum is consistent with what we know about children and how they learn and what they need to learn. Second, we have had an impact on making the total environment of children optimum for their learning. Third, we have capitalized on technology, automation, and electronics in an intelligent manner to individualize instruction and utilize staff at the highest level. In short, we have helped make teaching a profession, and we are partners with citizens in each community in providing schools which are adequate for these times."

BOOKS

for leaders

A Call and a Guide To Greatness

THE NONGRADED ELEMENTARY SCHOOL, by John I. Goodlad and Robert H. Anderson. New York: Harcourt, Brace, 1959. vii plus 248 pp. $4.95. Reviewed by Irwin Widen (Lambda 1546, Nu Field), *master teacher*, Jirka School, Chicago 8, Illinois.

ONE of the great achievements of nineteenth-century America was the development of the principle of universal elementary education. As pupils began to flock to elementary schools, the need for classification and systematization within those schools became obvious. Our nation's first genuinely graded school, the Quincy, Mass., Grammar School, began operation in 1848. Within a few years the graded structure of elementary education was firmly established; and it has remained prevalent to this very day.

Professors Goodlad and Anderson believe that the graded structure of elementary education has outlived its usefulness and should be abandoned. In support of this contention they present a well reasoned case. One of their arguments concerns the factor of heterogeneity:

> In brief, as extensive data presented in this chapter clearly reveal, a fifth-grade teacher, in spite of his designation, is not a teacher of fifth-grade children. At a given time, he teaches third, fourth, fifth, sixth, seventh, eighth, and even ninth grades, as far as learner realities are concerned, even though all the pupils in his room may be labeled "fifth grade." Any attempt to deal with these children as fifth graders can only be Procrustean in its ultimate effects.

Some commentators have viewed the factor of heterogeneity as good reason not for abolishing graded structure but rather for maintaining and strengthening grade standards. These critics of "soft" education would insist that a child really meet the standards of a particular grade in order to receive promotion to that grade. To superficial observation this suggested remedy appears logical enough, but the dynamics of human behavior do not so readily conform to the arithmetic of the inanimate. In a chapter entitled "To Promote or Not to Promote," the authors cite research comparing promoted pupils with nonpromoted pupils, and they report: "Promoted slow-learning children achieve at higher levels, are involved less often in aggressive acts toward school and schooling, get along better with their peers, and appear to have more wholesome feelings of personal worth." This quotation, however, should not lead the reader to conclude that Goodlad and Anderson endorse "automatic" or "social" promotion as a genuine solution. In the authors' view:

> . . . neither promotion nor nonpromotion by itself takes care of pupils' nonlearning or the teachers' problems of individualizing instruction. The increasing spread of attainment as pupils advance through the grades is the natural concomitant of the increasing spread in the pupils' abilities. Pupils more and more achieve above or below grade levels with the result that these levels become increasingly burdensome to teachers who see the conflict between grade standards and the realities of pupil development. When teachers recognize this conflict, it may be best simply to pull the grade barriers away.

The authors enumerate "four sweeping movements of widespread influence" which have provided a foundation for "a theory of continuous

pupil progress." These are (1) the Deweyan philosophy, which has viewed educational objectives in broadened perspective; (2) the study of human development, which has revealed that children differ intellectually as well as physically, emotionally, and socially; (3) research into the effects of school practices, such as promotion and retention of pupils; and (4) learning theory which has suggested that for the purpose of instruction "content should be reorganized for the development of inductive and deductive thinking without reference to its structuring as a man-made subject." These four twentieth-century developments, the authors believe, "indicate certain classroom conditions for effective learning. They do not dictate one particular structure, but they do force us to question the efficacy of a structure that encourages consideration of problems along grade lines, imposes uniform standards, gives rise to destructive nonpromotion practices, and compartmentalizes content."

The theory of continuous pupil progress, which differs markedly from both the theory of grade standards and the theory of social promotion, implies "the advancement of pupils along a broken front in all significant areas of development." Apparently mindful of the manner in which certain reform proposals of the past were distorted in practice to the point of caricature by some well-meaning but misunderstanding adherents, the authors issue a sober warning: *"To remove grades without first understanding and accepting this theory of continuous pupil progress is to court local disaster and to discredit the nongraded school movement."*

Of central significance for the reader who would gain a clear understanding of the theory of continuous pupil progress is a chapter on "Modern Theories of Curriculum and the Nongraded School of Today and Tomorrow." Here the authors take account of both pupil realities and subject-matter realities in sketching a "longitudinal view of the curriculum." According to the authors' explanation:

> The teacher's classroom decisions are heavily dependent upon his view of what should be taught and to whom. In the longitudinal curricular view, both the what and the who are seen over a span of years. As a result, whether or not the wet lands are taught in the fifth grade becomes less important than the extent to which each child is deepening his insight into certain effects of environment on patterns of plant, animal, and human life. . . . Whether or not Susan is reading the third book in a given reading series becomes less important than the extent to which her word analysis skills and eye movement are developing at a steady pace. What is taught when becomes less important than what concepts, skills, and values are being learned and how well. The timing and pacing of learning processes become more important than the grade placement of specific learning tasks.

Goodlad and Anderson are well aware, of course, that pupils must be taught in groups; and they address themselves with care to the question of what grouping should take place. With the conviction "that *planned* flexibility in grouping is a key to maximum pupil growth," the authors recommend "that each nongraded classroom be organized around achievement groups, interest groups, and work-study skill groups simultaneously. Planned heterogeneity in some curricular areas (e.g., social studies) is as important as planned homogeneity in others (arithmetic and reading skills)." They also recommend consideration of "grouping possibilities that cut across class lines."

The authors discuss differing means of measuring and describing growth, and they note certain principles which might guide the school staff in reporting to parents. In vivid contrast to the prevailing judgment-day attitude on evaluation is their suggestion: "The discovery of one's own potential, unconfused by the dubious standards that grades provide, can be an exciting and wonderful experience for a child. . . . " They sharply challenge the persistent notion that fear of failure is a desirable motivating force for children in school, and they charge that "grade-mindedness and the graded system have, many times, caused teachers to expect of children what they could not do." They see the graded system as "based upon notions of motivation, of human development, and of human organization that are almost entirely outdated." The plan which they advocate, on the other hand,

> . . . leads teachers to deal with each child's needs quite apart from the needs of the others. It imposes no penalty upon teachers when their pupils penetrate advanced ground or remain on a lower level, so long as each child is making as much satisfactory progress as could reasonably be expected. . . .
>
> For the child, school changes from a game of pass-or-fail to the more serious and uplifting business of making the most of oneself. The false satisfaction enjoyed by the above-average child in a graded situation is replaced by the sober responsibility of maximizing one's talents for learning. For the less able child, a state of nearly continuous frustration is replaced by an atmosphere in which there is frequent success and therefore a more genuine incentive to further learning. Even for the typical child, school life takes on a more wholesome perspective and the inducements to learning are more genuine.
>
> Within such an atmosphere, it is contended, a healthy and cooperative group spirit will more likely develop. Individual mental health is more certain to be fostered.

A highlight of this book is its excellent treatment of strategy which might be employed in establishing a nongraded program. The authors' feet are planted on the ground even as their eyes are focused on the stars.

The nongraded movement is certainly not large, but it does seem to be "gaining a foothold." The authors report that in the year 1957-58 some forty-four communities operated one or more nongraded schools (schools in which grade labels had been entirely removed from at least two grade levels); in most of these communities the nongraded program was limited to the primary level. The "capital city of the nongraded school movement" is Milwaukee, where a nongraded primary program has won acceptance in 106 of the system's 109 elementary schools. The Milwaukee experience and that of Park Forest, Illinois, are described in some detail in the text; and brief information about the other reported nongraded programs is contained in an appendix. Encouragement to further study is afforded by an unusually comprehensive bibliography.

Goodlad and Anderson are eminently qualified to write on the nongraded school movement, and they have done so thoughtfully and skillfully. *The Nongraded Elementary School* offers our profession not a panacea or a gimmick, but a call and a guide to greatness. One need not be planning a change to nongraded structure to find the book of value. In the opinion of Willard B. Spalding, who served as consulting editor, "This book is certain to have such impact that any informed discussion of the elementary school will of necessity take it into account." The book is highly recommended for all leaders in elementary education, including those classroom teachers who realize that theirs *is* to reason why.

A Timely Subject and A Seasoned Contribution

THE ROLE OF THE SCHOOL IN AMERICAN SOCIETY, by V. T. Thayer, New York: Dodd, Mead and Company, 1960, xii plus 530 pp. $6.00. Reviewed by William F. Bruce.

IN no area of our public life is there greater need for clear perspective, honest evaluation, and constructive foresight than in education at all levels—both public and private. Therefore, this seasoned contribution by a distinguished scholar and schoolman is most timely. The volume, written with clarity and insight, offers the concerned citizen and the professional educator aid in understanding the many factors underlying and influencing the current status of our schools. From his years of experience as a classroom teacher or administrator in country or city, and from university teaching in the South as well as the North, Thayer brings critical understandings to bear upon crucial issues of contemporary education. The product is a book full of searching analysis and practical suggestions for improving schools at every level, from kindergarten to college. The reviewer agrees with Advisory Editor Lindley J. Stiles, who says, "Its contents are so significant that they should be part of the knowledge of every American . . . who calls himself educated" (p. v).

The book's central theme is that the role of the school is changing in accord with changed economic and social conditions in the American society it serves. The first three of the four parts, into which the chapters are organized, undergird the practical suggestions of Part IV, "Critical Issues in Contemporary Education." Each of the earlier chapters reaches forward from its historical position right through to the issues currently faced in deciding about school programs. For example, the very first chapter of Part I, "Formative Ideas in American Education," shows how our long-standing "faith in education" soon became split by conflicting traditions, "each contending for a central position in the school: one a tradition of conformity and orthodoxy, the other a tradition of free inquiry" (p. 13). This conflict is seen under many new conditions until it is treated most specifically in Chapters 21 and 22, "How Free Is Freedom To Learn?" and "How Free Is Freedom To Teach?"

Likewise, the early chapters on Americans' optimistic "acceptance of change" (to Thayer "not an unmixed blessing"), and on the recognition of "the school as a supplementary institution" designed to reinforce benign influences of the home and other community units, give vital introduction to problems still with us. The consideration of values and limitations of "local autonomy in education" (Chapter 4) appear and reappear until the book's final chapter, "Federal Aid to Education in the States." Here the author outlines his own well-considered "plan for administration of aid to education . . . designed to avoid both the dangers of centralized control and the limitations of . . . local self-determination . . . [through] the creation of regional boards" composed of laymen as well as professionals (p. 513). Although each introductory chapter, including also that titled "Equality of Educational Opportunity," is so logically integrated as to be clearly

understood when standing by itself, its value is enhanced as the pertinent ideas are incorporated in new situations presented elsewhere in the volume.

Thayer's skillful analysis of economic-social-political change as it effected a gradual modification of educational theory and school practice is strikingly evident in Part II, "Changes in the Economic and Social Status of Youth." The author exposes the actual interlacing that is occurring from day to day, particularly in the lives of adolescents. The profound effects upon secondary education of youth's diminishing economic role are set against the difficulties that arise in coping with the diverse family patterns encountered in a single community. Out of this complex background come sharp questions to the school: What constitutes literacy in a modern industrial culture? What kind of intellectual discipline is relevant to life in a pluralistic society? In answering these fundamental questions, Thayer reaches deeply into his rich store of philosophic understanding, applying "the golden rule to absolutes" and using "creative consensus" to define "the conference method" in terms adapted to classroom groups.

Controversial Classroom Questions

The important issue of "controversial questions in the classroom" is a key to consideration in Part III of diverse views of the learning process as they are aptly placed in their American setting of early religious orthodoxy and later economic pressures. Although Thayer views the controversies over "political and social reform" as "an outgrowth of economic developments," and emphasizes the "mutual reinforcement of psychological theory and cultural factors," the book as a whole is not dominated by economic determinism. Again and again, the author notes the *plural* sources of American beliefs. For example, in democratic equality, economic influence never stands alone. Many and changing factors are shown as entering into the revision of the democratic concept, into seeing the child as a developing social personality, and into new methods of applying democracy in the school system to supervisory and administrative relationships. The reader will also see how the psychologies of learning—"mind-substance," "inner development," "adjustment," and "organic behavior"—arose as "expressions of culture," and how the teaching-learning processes have changed due to cultural-psychological influences. The reviewer, affected perhaps by bias toward psychology, would warn the reader, however, against discounting too readily the effects of *ideas* brought forth by psychologists Watson, Thorndike, Wertheimer, and Dewey upon teacher-education and thereby through change in school practice upon the "culture" as a whole.

The multitude of practical applications that parents, voters, teachers, and other professionals can make of the cultural-psychological-ethical understandings carried in every chapter can be suggested by a few of the "critical issues" pursued in Part IV. Is public education an undesirable monopoly and does it cost too much? Have we strayed away from the valid education of yesterday? Shall the state assist the non-public school in auxiliary activities? What is meant by "religion and morality" in public education? What is the role of the public in the selection of educational materials? When is membership in out-of-school organizations "conduct unbecoming a teacher"? How can the transition from segregation to desegregation be effected with justice to all concerned? How can the inability of local units to finance education be remedied without undue control? In dealing with such current issues throughout the book, the author presents fairly the arguments of opponents and proponents, but in each case makes his own position clear, for Thayer believes, "To know where a writer stands . . . is the privilege of the mature reader" (p. x).

Wherever sincere inquiry into school policy is going on, whether in the college class or the layman's discussion group, this book will furnish rich resources of economic and sociologic facts, of scientific findings from anthropology to zoology, and of psychiatric, psychological, and ethical principals, as well as numerous enlightening illustrations drawn from schools and communities. With such substantial resources at hand the prospects of inquirers with differing cultural backgrounds reaching mutual understanding and a higher degree of agreement are greatly enhanced. To all thoughtful workers for better schools we heartily recommend *The Role of the School in American Society* as a challenging philosophy of public education.

Student Opinion as a Measure of Merit

► In *Twelve Teachers and Their Effects on Students,* a bulletin prepared by Roy C. Bryan for the School of Graduate Studies, Western Michigan University, student opinion as a measure of teacher merit is intelligently examined.

Just one interesting observation coming from analysis of the charts summarizing student ratings of their teachers: The teacher's "knowledge of subject matter" is almost always rated higher than nine other criteria of excellence. But quite often teachers rated high in knowledge were rated low in "discipline."

MORAL COMPULSION, CIVILIZATION, AND SCHOOLS

Modern schools lack effectiveness in transmitting those powerful "prejudices" which make for worthy citizenship. The author suggests new ingredients to restore effectiveness he observed in the one-room rural schools of yesteryear.

By P. K. PLATTS

IN 1925 S. A. Courtis of arithmetic test fame was asked if any effort was being made in the Detroit schools to utilize the division into "houses" for moral direction, to make up for the weakening influence of the family (the tendency being for each member of the family to find his interests and activities outside the home). In reply he wrote:

"I fully agree with you that one of the strong tendencies of modern life is to disrupt primary groups and to force individuals into association with others of their kind. This means, of course, that future society will be unlike society of former days. There is a possibility, however, that it will be much better. . . . It is too soon to tell what the desirable outcome is and in any event I doubt if we are wise enough or powerful enough to determine the outcome."

Today, a third of a century later, as our way of life becomes increasingly less effective in transmitting those powerful "prejudices" which make for worthy citizenship, as the annually mounting crime rate among juveniles gives a mathematical measure of this—at this critical moment when it is realized that the schools are not meeting the needs of the hour—it seems appropriate to consider the means by which civilizations are fostered.

I see the country schools of my youth as agencies for the transmission of civilization. But in schools where "first graders" are kept to themselves, "second graders" to themselves, etc., I see schools that fail to contribute to the continuity of civilization. In what follows I will try to defend this conviction by analysis and analogy.

As to Mr. Courtis' assumption that youth, left alone, will evolve some new and better morality, that is not the way civilizations arise, survive, or flourish. Moral civilizations arise only where there is effective overlap of the generations, only where societies are so organized that the experience of the elders can affect attitudes and sentiments in the young.

If, like corn, each generation of men grew for a season, then withered and died before the young emerged, perpetual savagery would be man's lot—for he is born without memories, and there could be no accumulation of experience. The crude implements and shelters left by one generation might be used by the next, but improvement could not go far. Each generation would have to create a language, discover foods and live in general ignorance of what is good for man. If in one generation some gifted "see-er" should penetrate some distance into the heart of things, succeeding generations could derive no benefit. Perpetually, each generation would have to start from scratch, for there could be no communication between the generations.

Gigantic though the strides have been in recent years, man's ability to build skyscrapers and atomic weapons was not achieved in one lifetime but in the thousands of years since man first thatched a roof or fashioned a spear. The senti-

---

MR. PLATTS *(Omega 17, Psi 175) has taught in one-room country schools, consolidated rural schools, city schools, and a teachers college (in jumbled order). He now grows pineapples near Ft. Pierce, Florida.*

ments, ideals, and refinements that differentiate civilized men from savages are likewise the accumulation of thousands of years of experience, of thousands of years of trial and error, of slow discovery, of advance and retrogression. Biologically, man inherits these sentiments and ideals no more than he inherits a knowledge of mathematics, and there is no reason to suppose that man's biological inheritance has improved one iota since the dawn of history. A child of today reared by a she-wolf or by a savage would be no less savage because of civilized forebears—*for every child must start from scratch.* Just as a man today may or may not acquire a knowledge of mathematics or of nuclear physics, so he may or may not acquire the dignity or moral stature that his race has achieved.

Knowledge Is Not Enough

In order that the reader will have the same thing in mind as the writer, let us agree that moral conduct is that which promotes the general welfare. Now it is not enough to know what is right (moral). The good citizen needs this knowledge. But he needs compulsions to do the right. The average man has the capacity to be loyal to his ideals. He has the capacity to be loyal to his people. According to the maturity he has attained, his "people" may mean his family, or his nation. Rarely, because the average man is so concrete-minded, it may mean mankind. The stronger these loyalties, the stronger the compulsions.

In the face of great danger, certain cattle form a "protective circle" with the powerful males facing the enemy, the cows next, the calves farthest from the enemy. This is loyalty—it is morality. Certain bees unhesitatingly sting to protect their colony, although the act destroys them. In the case of cattle and insects such behavior is a reflex —a law of their nature. Human beings have the capacity to acquire a devotion to their homes, to their people, and to their concepts of right and duty so that they will as dauntlessly and unhesitatingly give their lives when occasion demands. On the other hand, human beings may act as craven cowards, attached to no duty, to no person but self. For the human infant is born a perfectly selfish being with no concern beyond satisfaction of his immediate wants. Whether he becomes a "man of good will," capable of forgetting self, or whether he remains to a ripe old age almost as selfish as at birth depends upon the degree to which he learns love and loyalty to his kind.

Cradled at his mother's breast, the newborn babe enjoys utter security and satisfaction. There he begins to form affectionate attachments—and there he begins to form sentiments of right and wrong. So monstrous was the denial of long-established custom, so jolting the experience, that I can remember the occasion when, at the age of two (I suppose) I was for the first time denied the "right" of going to sleep at night with my head on my mother's arm, my cheek against her breast. Similarly, when I was somewhat older, the story of the Little Red Hen was read to me over and over. After the book was worn out, if someone told me the story with any variations it irritated me exceedingly—it just wasn't right!

Whatever the infant—or adult—becomes accustomed to tends to be considered right. To one always accustomed to slavery or piracy, to indulgence in alcohol or blasphemy, such practices are considered "natural" and "right." After the farmer has received price supports for a number of years, he comes to feel he has a right to them!

When the mud-dauber wasp first emerges to the light of day from the clay cell in which his infancy was spent, by a kind of memory he knows all the cunning, skills, and sentiments required of adult mud-daubers. He knows where to look for clay and how to build with it. He knows just where to sting his prey in order to bring about a state of suspended animation. If he finds a load too heavy for "take off," he will drag it to a height and try from there. On the other hand, the child is born without memories. The specific behavior patterns with which the human infant comes equipped are strictly limited in number, but one of these is an urge to adopt patterns. In home-centered civilizations, the boy literally, as well as figuratively, tries to walk in his father's footsteps. He accepts his father's values and thereby joins the human race, which extends not only around the earth but from the past to the future. When the time comes that he craves to run with other children, to dress, think, and act as they do, he is troubled if their values are radically different from those of his parents.

The Little Red Hen and Value Codes

If a child's experiences are unsatisfactory because of want of sympathy and love, or are inconsistent and without pattern—if the story of The Little Red Hen is never told the same way twice—he may emerge from childhood without having accepted any code of values. Then, literally, he will have no conscience. Usually, however, he will find a code somewhere, even if it is as a member of a group which has somehow evolved a system that is quite anti-social, and to that code he may be as true as a Christian martyr—whether it be the code of "The Little River Rats" or the Communist Party.

A Child Becomes 'Conscientiously Selfish'

A child who is unduly pampered, his every wish granted, may develop the curse-of-princes complex. He is conditioned to think that all privileges belong to him; one may say that he becomes conscientiously selfish.

As civilizations become more complex, there seems to be a tendency for those sentiments which elevated them to become mere ideas. Gibbon suggests that in the days of the emperors, although Romans still possessed the *ideas* of their proud ancestors, because formal education was the same as in the days of Cato and Cicero, the *sentiments,* which would have driven a Cato to resist the tyrant emperors at any cost, were dead. A Roman family was no longer close-knit. No longer did the boy learn the love of freedom, along with the rudiments of agriculture and warfare, from his father. When Romans had become conquerors on a large scale they had paid the price commonly paid by those who seize power, slaves, and wealth. Tempted as never before by avarice and the craze for pleasure, become "broad-minded" as to the ancient virtues, they relegated the care of their children to slaves. So their children became strangers to them. As readily learning the vices of slaves as the virtues of freemen, they lacked discipline, integrity, piety, and devotion to country. The spirit and sense of destiny of the old Rome died because there remained no mechanism for perpetuating it.

Tiny Sparta, on the other hand, had been amazingly fashioned to preserve the ancient virtues. Spartan slaves were slaves of the state rather than personal slaves. The system guarded against the accumulation of wealth; the government was in the hands of the old men; and boys from the age of seven lived in martial bands commanded by older boys under the supervision of the elders. In this remarkable society, although family life was at a minimum, change and defeat in war were almost unknown for about 500 years. But the mechanism for perpetuating their culture was too perfect. Conditions eventually arose with which this static, backward-looking society was not prepared to cope, so Sparta too fell.

Breach of Contact Brings Moral Chaos

A society can abandon the past and lapse quickly into effeminacy or savagery, or it can, as Sparta, cling to it too closely. This is certain: if man today is one step above spiritual savagery it is because his contact with the past is still vital enough to conserve sentiments and ideals achieved through the ages. It is obvious that when a people destroys the mechanism by which these sentiments are transmitted, moral chaos quickly follows.

In lands where life and interests center in the home, home life provides such a mechanism, and what the schools do or fail to do is not so important. The old American country school with several grades in one room was one of the best mechanisms, outside the family, for the perpetuating and refining of civilization.

THE AMERICAN COUNTRY SCHOOL—AS THE AUTHOR REMEMBERS IT

THE simple philosophy justifying state-supported education in the United States was set forth in the Northwest Ordinance of 1787:

"Religion, morality, and law being necessary to good government, schools and the means of education shall forever be encouraged."

In other words, the objective was good government. This principle was generally accepted and was specifically set forth in texts in "Civil Government" until sometime around 1920.

Another principle fully accepted was that the teacher in the school had the authority of a parent. Parents told their children that if they got a whipping in school they would get another at home —and often meant it.

Frontier schools were ordinarily started with a handful of children of different ages. Thus the form and organization of the typical country school was not deliberately planned but simply happened. Groups within the school came to be designated by the reader they were using, "first," "second," "third," etc., and later these groups were called "grades." When the enrollment became too large, another teacher would be employed, one teacher then taking the upper grades, the other the lower.

These schools were efficient mechanisms for transmitting civilization because, just as in a family, children learned attitudes from those a little older, and the oldest learned from the teacher, who was often little older than the older pupils.

Regularly the teacher's desk was at the front of the room, the floor across the front being raised a step to make a kind of stage. There were blackboards on the walls all around the room between windows and doors.

In front of the stage were the long recitation seats, occupied by the class reciting at the moment. Then came the children's seats in orderly rows, the smallest at the front and the largest at the back.

The beginners were usually seated at one side or other of the recitation seat so that they were under the closest observation by the teacher. They were aware also of the older children sitting behind them. In such a society six-year-olds, or ten-year-olds, or fourteen-year-olds did not behave as six-, or ten-, or fourteen-year-old children by themselves behave. The younger accepted patterns of conduct from the older, the older felt the clear-eyed appraisal of the younger if they did not live up to accepted standards. Brothers and sisters would be especially critical of the conduct of each other and parents would be sure to hear of misbehavior. In this atmosphere children tended to be sane, to see clearly; in this atmosphere the community's standards of conduct were likely to become "right" and imperative. As pupil and as teacher in such schools, I can recall few instances of disorder or impudence.

Teacher's Work Was Easy

Although it may sound complex, the teacher's work was tranquil and easy. He did not have to make elaborate lesson plans in order to motivate the children. The younger wanted to do what the older were doing—reading, writing, memorizing, studying. No stigma had been attached to work at that time. We learned spelling, tables, and dates in the same way we memorized the list of things our mothers told us to get at the store, by saying them over and over to ourselves—"bacon, grits, lard; bacon, grits, lard; etc."—or by writing them over and over on slate or blackboard.

The beginner had a chance to learn to write a word the very first day—how well I remember my dad showing me off!

In pauses in their labors, as older classes recited, the younger children had previews of lessons to come. As the younger recited, the older children had reviews, perfecting their memories and understandings. Just as there is an itch in every spectator's finger to help when someone is trying to untie a tricky knot, so mentally each older child would have an urge to help a younger one with a tricky problem, and even if the teacher did not ask him to do so, the incident would help to perfect his own understanding. Because reading was taught phonetically, great freedom in selecting matter presented in the readers was practical and we read selections from great literature, history, fable, wisdom, and poetry, which we heard year after year with increasing appreciation. And because we heard the stories over again year after year, the experiences depicted became peculiarly our own—we stood with Horatius at the bridge, we shared Columbus' struggles and with him discovered the Indies, with Washington we became veterans of Valley Forge.

While order, tranquility, and industry ordinarily prevailed in the classroom, at recesses (in the happy days before I had ever heard the words "supervised play) pent-up energy was released with a bang. In a twinkling, if weather permitted, some of the older children would start some ancient game such as "Prisoners' Base" or "Pum-pum Pull-away" and we played with great vim. If teacher joined in or so much as appeared on the playground, we played even harder, showing off. In namby-pamby play there is not the wholesome release of tensions there is in furious play. We came out of our shells and accepted the rules of the game.

At the bell we "marched" back in, although there was rarely any keeping step.

Each morning the day started with reading from the Scriptures, the Lord's Prayer, and singing from some collection like "101 Best Songs," songs that were heart throbs of our heritage.

Now in those days when a boy of fourteen or so lost interest in school, he quit and went to work—or if he stayed in school and made an incorrigible nuisance of himself he was expelled. The wisdom of this was not questioned. It was recognized that the presence of troublemakers was incompatable with the purpose of the school. So the school was saved and the boy was spared the vicious kind of imprisonment imposed on some youngsters today by compulsory school laws.

DEVELOPMENT OF GRADED SCHOOL

THE "grade school" evolved as innocently as had the country school. Districts became more populous or were consolidated and the time came when one teacher taught one grade only. Eventually even on the playground first graders were kept with first graders, second graders with second graders, etc. At school their only living contact with the past and with contemporary society was an adult, the teacher, during those all important years of grade school. Close association with others of their own stage of development made it ever easier to understand each other, but tended to make it ever less easy to understand those older or younger. Each group found leaders among its own members, leaders without responsibility, qualified only by excess of initiative and not by experience, judgment, or wisdom. Insurance companies impose a penalty in the form of higher rates on drivers under twenty-five because statistics show they lack judgment, but this new school system imposed upon each group a leader as im-

mature as themselves during the years when characters are forming. Each group was (and is) insulated from the past and from older and younger. To perpetuate and build civilization a fusion is needed.

SCHOOL ORGANIZATION FOR FUSION

CIVILIZATION is a discipline which a wise society imposes on its members in order that it may not fly apart but survive, and that life may grow richer from generation to generation. Many factors in modern life have weakened the effectiveness of the family as a means to this end. Formerly our elementary schools did the job well; in ignorance we have made them ineffective. But there is a type of school organization which can be adapted to any school, which goes far toward fusing the generations, thus preserving civilization.

In about 1830 Dr. Thomas Arnold at Rugby, the "old public school" (private boarding school), initiated reforms which utilized an organization already existing. The other "public schools" quickly followed his lead and for over a hundred years now English mothers have had utter confidence in those great schools and the world over have desired to send their boys back to them, at a tender age, "for the good of their manners and morals."

Private schools in the United States, the Boy Scout movement, day schools in the British Dominions (except Canada) and in England have adopted features of the "House Organization" of these old schools, which to me appear to constitute the desired mechanism.

Briefly, each pupil is permanently assigned to one of the "Houses" or "sides" into which the whole school is divided, all members of one family belonging to the same side. At all times he wears a distinctive cap or other insignia to show his side. The playground program of the school is built on league-like scheduled competition in many events, at several age levels perhaps, each side striving through the year to earn the distinction of "Cock House." Sometimes points for the side may be earned by minimum achievement in track events so that almost any child can contribute to his side's standing. Awards are never to the child but to the "House." Each side and each team has a captain and other officials to give responsibilities to many. Coaching is by the youngsters themselves, a senior being interested in developing even the youngest on his side. From his first day the new pupil has a side to stand up for. He learns to subordinate "grandstanding" to the good of the team, to "go all out" for his side and never "let it down." He looks to older members for leadership and know-how. Even in private schools in the United States it is said that there is more interest in a crucial game between sides than in a game with another school.

Some schools take the competition into the classroom and by a point system each child's grades count for or against his side. Of such competition within a single classroom an eighth grade teacher in a school where I worked on this for three years wrote:

"I have always had my classes divided into groups or sides for the purpose of competition in all kinds of contests. It has been of great value in encouraging the slow or average pupils because they have felt they were helping their group rather than competing with the brightest pupils, against whom they could make no showing. It has helped to make the bright pupils unselfish because they have worked not only for themselves but for others." (Miss Minnie Burnett, Bunnell, Fla., May 11, 1934.)*

* For more detailed accounts of the operation of the "House" organization, see Platts, "A Better Social Unit for American Schools," *Peabody Journal of Education*, Vol. V, July, 1927, pp. 7-17; "Moral Significance of the Social Organization of Schools," *Education Method*, Vol. IX, November, 1929, pp. 107-109; "Schools for Citizenship," *Education Method*, Vol. X, November, 1930, pp. 84-87.

► "Adjustment" has become our highest personal and social value. And adjustment, in the present-day sense of the word, clearly implies the avoidance of all strong feeling, whether in private relationships or in our responses to public situations. In public affairs, we equate fierce dedication to an impersonal goal with fanaticism. In private affairs, we equate intense personal feeling with emotional aberrancy. To be personally and socially proper, one must give no evidence of passion. Yet it was not so many years ago that a passionate commitment to goals or persons suggested, not a social threat or a personal maladjustment, but a special talent for life.

—Diana Trilling, in *Look*

► Where once occupations and professions could be numbered on the fingers, the American society now contains 42,000 specialties, only one-fourth of which can be handled by unskilled workers, according to Milton Eisenhower, president of Johns Hopkins University. He adds that the day when a scholar could stay abreast of the intellectual developments in his field with relative ease is gone. "Last year," he said, "we witnessed the publication of 55,000 journals, containing 1,200,000 articles in the physical and life sciences alone. In one tiny segment of the intellectual disciplines, more than 35,000 significant articles were published."

By **IAN BRALEY**

LABELISM
And the Dedicated Teacher

Labelism or stereotypism is tragic when it causes the school to lose a youngster in a pigeon-hole. Here is another plea for intelligent individualization of instruction.

CONSIDER the old story of the camper whose canoe upset. His cans of food spilled out, and by the time he recovered them the labels had washed away. All his meals then became a series of bad guesses, with anticipated peaches turning out to be realized hash.

Certainly modern society needs labels. We can't discard our "high voltage" signs or our traffic lights. As educators, however, we must beware—our labels might be wrong. If we forget this we suffer from labelism, judging by labels rather than by proved worth.

Going back to peaches and hash, suppose that we had found by experiment that many of the cans had the wrong labels. Before reaching for the can opener we would not only consult the labels but we would also check the size, weight, and sloshiness of the cans. Do we educators do this?

Do we decide in advance that an article in *Harper's* will be good, and one in the *Reader's Digest* will not? When considering a prospective colleague, does the Ivy League man automatically get the nod over the one from Backwoods Normal?

Perhaps these attacks of labelism do not matter too much. A number of fine articles appear in *Harper's* and a number of excellent men graduate from the Ivy League.

But labelism can cause tragedy when it hits students. The hastily judged and carelessly pigeonholed youngster fails where he might have succeeded. Examples are common enough: The poor but brainy boy who remains unchallenged, the scientifically brilliant girl who skips chemistry because "that's for boys," the well-to-do lad who slaves in a vain attempt to become an engineer when he would be far more useful and happy as a machinist. Either their personal labels or those of society have let them down.

The popular verdict might be that monotonous chant, "Here is another conflict of values." But the bound-to-fail engineering student seems to hold values which sound respectable, even noble. He wants to perform a socially useful task in an area which demands adherence to a rigid ethical code. He shows his willingness to sweat at courses which no campus wise guy would call easy. Improper values are not to blame.

The sad truth is that somewhere someone has caused him to tag "machinist" with a phony label. No one can convince him now of the social usefulness and rigid ethical code of the skilled jobholder, and he continues his hopeless battle.

In the case of the poor but brainy boy the incorrect tag attaches to the student. He is probably not the Alger type with a thirst for knowledge and the boss's daughter. He comes from a slum and uses his intelligence to succeed there. If he turns delinquent he makes himself hard to catch. The school judges him by his sideburns and black leather jacket and pins on his label in a hurry. Have the school people a warped sense of values which refuses an opportunity to a high I.Q. pupil just because of his home address? Far from it. Most teachers feel that the occasional discovery of such a diamond in the rough awards the finder a thrill no other job can match.

The villain is the hurriedly-applied label which obscures the carats underneath.

Labelism is not a new disease, of course. The whole sorry history of the degradation of the American Indian and the Negro constitutes one example. Europe's savage religious wars form another, and Senator McCarthy's successes a third. But it gets more common with today's increased travel. In less hectic days one usually had time to look a man over carefully without snap judgments. He wasn't one of twenty new people we were to meet that day, and he wasn't going to fly to Rome tomorrow.

Now we must meet, weigh, and compare people and ideas in a rush. Labelism looks like a handy short-cut. We winnow out a lot of chaff this way—a waiter with a dirty shirt, a salesman

---

MR. BRALEY *(Delta Theta 6) taught at Arizona State College, Flagstaff, and is now studying for his doctorate at Stanford University.*

who can't find his price list. But too often people receive labels because of absurdly trivial judgments. Legends still persist about the reliability of people who polish the backs of their shoes as well as the fronts. Shifty-eyed men are not trustworthy. Women who smoke are flighty, if not actually loose.

When Labels Fade, New Ones Appear

These notions sound laughable to sophisticates. Uncle Hiram may have believed in them but a modern educator never would. Nevertheless, though these labels have faded, others have appeared which possess more vigor. The man who drives a Cadillac must be a solid businessman. No idea which is advanced via TV can have merit. A manufacturing concern with a modernistic building turns out better products. Heavy bond letterheads mean the sender is dependable.

Some notions like these result from clever advertising. Others spring up full-grown when a decision needs justification. The disturbing thing about them is not their high birth rate but the readiness of people to accept them. They obviously fulfill a need, a need for some selection device to simplify our choice among countless products, people, and ideas. As more suitable products, trained people, and plausible ideas show up in the market place arbitrary labelism gains more victims.

In choosing and judging people, the style of labelism has changed. We have rightly abandoned many of the old-style labels such as noble birth and Nordic background. But have we replaced them with justifiable measures of worth such as previous record or performance on the job? In classifying a student, for example, how much weight is attached to what he has done the years he has been in school; how much to his score on one day in one paper-and-pencil test?

The psychometrists protest at the difficulty of constructing any one test of achievement or intelligence which is reasonably reliable, let alone valid. Yet the sketchy testing continues, and the labels are pinned on the students accordingly.

"But there just isn't time for more careful judgment." Perhaps not, but consider the alternative. From a coldhearted financial standpoint, the cost to the school of a bad guess about a pupil can be high. On the pupil and on society mistraining can levy still heavier penalties. Even in the short-range view, how much staff time would proper placement of each pupil save? How many presently bored or overwhelmed rebellious youngsters would buckle down in the right setting?

This is not a plea for more tests, counselors, or heart-to-heart talks, but it is a protest against labelistic snap judgments and short-cuts. Our inverted canoeist saved time and effort by failing to lash his food to a thwart. Yet in the long run he made himself a great deal of extra labor.

By putting his faith in labelistic criteria, the educator puts far too many pupils into the wrong pigeonholes. Apart from the damage to society and to the student, he makes more work for himself and his staff.

What about the staff, anyway? Surely they make or break the school, yet we find no lack of labelism in their selection. Does a master's degree make a better teacher? That would be hard to prove, but many teaching positions demand one. Because "we haven't the time" to set up criteria for expert teaching, the master's degree provides a label of excellence, good for life.

In comparing members of the same staff we use a less formal sort of labelism. Mr. Jones happens to be a master of the lecture method. This labels him as a traditional fuddy-duddy to some and as a dependable transmitter of culture to others. Mr. Smith handles the project method with great skill. This makes him a namby-pamby without classroom discipline to some and a forward-looking builder of citizens to others.

Like teachers, like schools. Examine the latest wave of anti-school propaganda. Much of it pounds at the theme of "a beautiful school on the outside, but. . . . " What sort of labelistic thinking would lead one to expect that a beautiful school would lead to a beautiful education?

The labelists, fooled and therefore enraged at the trickery of educators, attack all schools—except those in other countries. The thoughtful lay observer of education can hardly be heard for the uproar.

The snap judges and banner wavers within education return the fire with labels like "enemy of public education." Anyone who suggests practical remedies for school problems gets blasted, unless of course he suggests higher salaries. We all like the sound of that, but we haven't the time to find out which observer is calling for the biggest raise for us.

Solution Is Near at Hand

Fortunately the solution of many of these difficulties is right at hand. We don't even have to form a committee, and it might be better if we didn't, just this once. If we can just make it a point occasionally to identify one of our more glaring labelistic judgments, and then to reconsider and revise it, we may have it whipped. We

may get into the habit of shying away from labelism.

We may even find that we no longer notice the Presley sideburns on that smart-aleck junior. It might happen that they disappear for us because we now notice the boy between them. Perhaps the boy will identify with us closely enough to shave off both the sideburns and some accompanying anti-social notions.

Either way, it sounds like a good idea.

Keeping Abreast in Education

USOE To Disseminate CRP Results

► Plans are now being made to disseminate widely the results of certain major studies supported by the U. S. Office of Education-sponsored Cooperative Research Program. This announcement was made in the first *Cooperative Research Program Newsletter*, published in January.

Since its beginnings in July of 1956, the CRP has received and reviewed 849 proposals, 262 of which were recommended to the Commissioner of Education by the Advisory Committee and 234 of which were signed into contract. The table below summarizes these.

A series of monographs will be published to describe results of the most significant of the studies, according to the *Newsletter*.

Subject Category	No. of Projects	Funds
Mentally retarded children	61	$ 3,867,864
Special abilities of students	29	1,611,972
Staffing	26	1,004,483
Retention of students	15	718,967
School organization and administration	14	652,277
School construction	1	166,265
Juvenile delinquency	6	157,688
Population mobility	7	80,270
Vocational education	2	33,716
Other aspects	73	2,278,108
TOTAL	234*	$10,571,610

* These figures do not include eighteen projects approved in November but not yet signed into contract.

More Counseling-Guidance Institutes

► Eighty-four counseling and guidance training institutes for approximately 3,000 teachers will be held this summer under Title V-B of the National Defense Education Act. Last year there were fifty such institutes, attended by 2,210 counselors.

Public school personnel attending receive stipends of $75 a week plus $15 a week for each dependent. Private school enrollees attend without charge but receive no stipends.

New Edition, Research Encyclopedia

► The third edition of the *Encyclopedia of Educational Research*, last revised in 1950, is now available from the Macmillan Company, 60 Fifth Avenue, New York. The 1,564-page work, compiled by Chester W. Harris and Marie R. Liba of the University of Wisconsin, is "an evaluation, synthesis, and interpretation of all pertinent research in education during the twentieth century." It is sponsored by the American Educational Research Association.

Major areas covered by the 184 scholars who contributed articles are:

1. History and philosophy of education.
2. Human development, including research in the learning phenomenon, the gifted child, and the handicapped child.
3. Political, social, and economic factors affecting educational institutions, such as population change, the family, and the community.
4. Administration, curriculum, counseling, evaluation, and instruction.
5. Research on various age groups, from preschool to adult.
6. Research on the teaching of various subjects.
7. Value systems affecting educational goals.
8. Insights into the methods of educational research.

Rising Costs of College Education

► University Park, Pa.—Evidence is mounting that rising costs soon may deprive the average Pennsylvania youngster of the opportunity to pursue a college education.

At the Pennsylvania State University, for example, nearly $300,000 in loans have already been pledged to needy students for the current school year. Not yet satisfied are 155 requests for an additional $60,000 in loans.

As recently as five years ago, requests for loans never exceeded $50,000 a year and few if any requests were left unsatisfied. National studies indicate that the cost of a university education has risen 33 per cent since 1955.

Ford Foundation Wants *Action*

► The Ford Foundation's Fund for the Advancement of Education is not interested in supporting research into educational problems, according to a statement by Philip Coombs, Fund secretary, in the February issue of *School Management*.

This lack of interest is not because research isn't important, Coombs explains, "but the missing link for American education is the *conversion of research into actual trial*. We are trying, as best we can, to fill this gap between research and what, in industry, you would call the pilot plant operation . . . in short, we are not interested in merely having problems studied . . . we would like to support *actions* that hold promise of helping to solve the problems."

Coombs also takes up a number of allegations that have been made against the Fund for the Advancement of Education. He denies that projects it backs cannot fail and explains the organization's attitude toward requests for small grants. He said that "there are no strings attached to our grants except the tacit one that you do what you say you're going to do."

New USOE Study of Comparative Costs

► A five-state survey of comparative costs of public education has been launched at Stanford University under the direction of H. Thomas James. A 15-month, $28,577 grant from the U. S. Office of Education will support the study, which includes California, Nebraska, New Jersey, Washington, and Wisconsin.

James and his aides seek answers to two questions: 1. Does greater tax equality among school districts, both in cost burden and pupil benefit, result from higher levels of state support? 2. Does increased state support mean less local freedom to make decisions?

Among the group of educational specialists who will aid James in planning the study are G. E. Watson, George D. Strayer, Jr., William Keller, R. L. Johns, Arvid J. Burke, Wallace W. Hall, Eric Lindman, Arthur Corey, and Garford Gordon.

Are *the People* for Federal Aid?

► Do the people want federal support of education? Here are the facts as reported by the NEA Research Division:

Life, in 1950, asked about federal aid to education and found that 65.4 per cent of the people were for it, 24 per cent against, and 10.6 per cent didn't know or had no answer.

The Gallup Poll, in 1957, asked, "Do you favor or oppose federal aid to help build new schools?" The answers were 76 per cent in favor, 19 per cent opposed, and 5 per cent no opinion.

The Roper Poll, in 1957, found substantially similar results on this question: 73 per cent in favor, 16 per cent satisfied with local financing, and 11 per cent with no opinion.

Announce Council for Education Research

► Formal organization of the Council for Research in Education, in which Phi Delta Kappa has been active for two years during the planning stage, was announced last month by its newly elected chairman, Kenneth E. Anderson, dean of the School of Education, University of Kansas.

The council will seek financial support for individuals and groups to encourage research in areas that need to be studied, according to its secretary, Frank W. Hubbard. It will also "examine the status of educational research," throwing the spotlight on areas in which research is greatly needed. Finally, it will seek to improve the quality of research in education generally by stimulating better preparation of research workers and by promoting inter-disciplinary approaches to educational research.

Besides Anderson, who is also president of the National Association for Research in Science Teaching, and Hubbard, who is assistant executive secretary of NEA information services, the new group has the following board members: Boyd Harshbarger of Virginia Polytechnic Institute, representing the American Statistical Association; John Darley, executive secretary of the American Psychological Association; Howard McClusky of the University of Michigan, representing the Adult Education Association; Maynard Bemis, executive secretary of Phi Delta Kappa; and Percival M. Symonds of Columbia University, representing the American Educational Research Association.

Science, Languages Low in Public Esteem

► Neither parents nor the general public give top priority to the study of science and foreign languages, according to a poll of the Denver, Colorado, school system conducted last fall by Research Services, Inc. In a ranking of "the most important" subjects in the curriculum, these placed last.

Another interesting finding of the Denver polls, conducted every third year as a matter of board policy, was that parents ranked their sources of information about the schools in this order: pupils, PTA, newspapers, school personnel, friends, school publications, and personal observations. Non-parents listed sources in this order: newspapers, friends, personal observation, pupils, school personnel, PTA, and school publications.

Researching Research Ignorance

► Roughly one-half of our elementary teachers are able to list a single piece of educational research. Slightly more than half of our teachers have never done what they consider research.

These are among conclusions reached by Neal R. Edmund and Anthony Milanovich as the result of research reported in the January, 1960, *Peabody Journal of Education*. They strongly urge college instructors to do more to impress teachers with the fact that they can and ought to do more research. A number of suggestions for doing this effectively are included in the article.

Art Corey on Educational Research

► "Benjamin Franklin wrote a letter to the Royal Academy in London in which he asserted that he had established with his kite experiment the fact that lightning and electricity are the same phenomenon. The gentlemen of the Academy laughed and responded with the eighteenth-century equivalent of 'Go fly your kite.'

"Franklin's useless fact made the lightning rod inevitable. . . .

"Research need not be immediately practical to be worthwhile. . . . We have had all too little of this kind of research in education.

" . . . A teacher who exhibits marked intellectual curiosity should be able to alternate between teaching and research without too much supervision as to what he investigates so long as he prosecutes his inquiry diligently and makes available his findings to his colleagues. . . .

"A great profession cannot afford consistently to assign routine tasks to its research departments and expect the truly creative research to be done by those who are employed to teach and who pursue their inquiries as an avocational or extra-curricular activity."

—Arthur F. Corey, in January Research Issue of *CTA Journal*

Economic Significance of Advanced Education

► Only one person out of ten with college degrees did not work throughout the 1958 recession. But chances for persons with only the high-school diploma to spend fifty to fifty-two weeks on the job were only three in four. Family breadwinners with less than nine years of formal education had only a fifty-fifty chance of working throughout the recession year.

These facts, published by the University of Michigan Survey Research Center, underline the economic significance of advanced education. In a study supported by the U. S. Office of Education, other Research Center data show that about one in six families fall in the low income, low education category. Almost two-thirds of those families with incomes of less than $2,000 annually have no more than an elementary school education. Children from such units have difficulty staying in school. Even when the children are talented, economic reasons and lack of family encouragement often cause them to drop out.

It is hoped that the study, which will not be complete until 1961, will show how to break the continuing circle of low income and low education.

Twenty-Year Growth of Junior Colleges

► According to a North American Newspaper Alliance study announced by NANA columnist Ben Fine, more than 900,000 students are attending approximately 675 junior colleges today, compared with 200,000 enrolled in this type of school twenty years ago.

Stiles *Saturday Evening Post*

But, as you say, that's your humble opinion. And it happens to be in conflict with my authoritative one.

PDK Chapters and Soviet Seminar

► Applications are still being accepted for a 1960 Soviet Seminar, in which Phi Delta Kappa is cooperating with the Comparative Education Society to increase the number of male participants. To date some fifty persons, about half men, have signed up to go. A number of chapters of Phi Delta Kappa are subsidizing part of the expenses for one member. Interested persons should write Dr. Gerald Read, secretary-treasurer, Comparative Education Society, Kent State University, Kent, Ohio, for details.

The seminar will open with eleven days in Moscow, beginning August 15, after which participants will divide into two groups with somewhat different itineraries. The group will join in Moscow on September 16 for the return trip.

Tompkins Succeeds Elicker in NASSP

► Ellsworth Tompkins has succeeded Paul E. Elicker, retired, as executive secretary of the National Association of Secondary-School Principals, largest educational administrative organization in the world with more than 22,000 high-school principals as members. He has been associate secretary in NASSP and since 1955 has edited *The Clearing House*.

► "Among the most crucial decisions of this century to be made by a President during the next four years is how to rebuild the stature of American science and education."

—Senator John F. Kennedy

Issues Raised by NDEA

► Writing on "The Impact of the National Defense Education Act on Public Schools" in the January *Administrator's Notebook*, Ronald F. Campbell, director of the University of Chicago's Midwest Administration Center, cites opinions of forty chief state school officers and suggests a number of long-range issues which should be raised:

1. Must we perpetuate the folklore of local school control? Despite the standard disclaimers of the law itself, Campbell suspects that in our kind of economic, political, and social world major participation and some control on the part of the federal government are inevitable.

2. What do we mean by control? Here again the wording of the law is pious, but control is not merely a matter of rhetoric.

3. Must we bootleg federal aid under the guise of education for defense?

4. What is the relationship of Public Law 85-864 to other national policy for education? Don't we need a rational approach to the various forms of federal assistance now handled by more than twenty federal agencies?

5. Is the executive branch of the federal government subverting the policy-making function of Congress? Some of Campbell's respondents are gravely concerned that what began as a relatively simple enactment may through administrative modification, legal interpretations, and budget rulings turn into a veritable maze not necessarily congruent with the original intent.

6. Is the traditional value position of our nation being threatened? The essense of the democratic credo has been the enhancement of the individual, with the state the servant of the individual. "Education for defense" places the emphasis on social need, not individual development. Is it possible that in order to meet the threat of our chief antagonist we have adopted the very values which we wish to resist?

USOE Foreign Seminar

► Forty U. S. school administrators were selected from more than 600 candidates by the Board of Foreign Scholarships to participate in the Second Annual Foreign Seminar in Europe, which began on February 1 and continues through March 24. This program is administered by the U. S. Office of Education under the International Educational Exchange Program of the Department of State.

1500 NDEA Fellowships Next Year

► Fifteen hundred NDEA graduate fellowships will be awarded in the 1960-61 academic year, according to Commissioner of Education Lawrence Derthick. Graduate schools with approved programs must submit student applications by March 5. To date, 406 programs of graduate study in 136 of the nation's colleges and universities have been approved.

Planning Schools for the Future

► *Planning America's School Buildings* is the AASA's effort to foretell building needs of one of America's most rapid periods of growth—the twenty-five years immediately ahead—during which cultural changes may very well be even greater and more far-reaching than those of the immediate past.

Some of the changes the 229-page report tries to anticipate in curriculum and method are: emphasis on guidance at all levels, changes in the teaching of science in elementary and high school, increases in adult education, use of mass communication media in the school program, the trend toward a year-round school.

The book may be ordered from the American Association of School Administrators, 1201 Sixteenth Street, N. W., Washington 6, D. C., at $6 per copy.

Opportunities for Study Abroad

► Ninety thousand individual opportunities for fellowships, scholarships, and travel grants for study in the 1959-60 year are listed in the new edition of *Study Abroad*, Unesco's international handbook on educational exchange. The 755-page book also includes statistical surveys showing the distribution of students studying abroad.

There were 180,000 foreign students in institutions of higher education throughout the world in 1957-58, an increase of 15,000 over the previous year.

The *Study Abroad* handbook may be obtained for $3 from Unesco, Place de Fontenoy, Paris 7.

GI Bill for 'Cold War' Vets

► The bill to give educational and job training opportunities to "Cold War veterans" at government expense appears to be gaining support in this session of Congress. It passed the Senate last session by a 57-31 vote.

As now framed, the bill would make eligible for benefits similar to those of the World War II and Korean G.I. bills some four million young men who will have been drafted before the current draft law expires in 1963.

For Story of 'Project Talent'

► Persons wishing to know more of "Project Talent," the vast inventory of aptitude and ability being conducted this month throughout the U. S., may obtain "The Story of Project Talent" from University of Pittsburgh, Project Talent Office, 6135 Kansas Avenue, Washington 11, D. C.

PTA Draws the Fathers Too

► Fathers now number one-third of the total 12,000,000 membership in U. S. P.T.A.'s. In some states as high as 43 per cent of the P.T.A. chapter heads are men.

Bertrand Russell on Grouping

► "It is, I am profoundly convinced, a mistake to object on democratic grounds to the separation of abler from less able pupils in teaching. In matters that the public considers important no one dreams of such an application of supposed democracy. Everybody is willing to admit that some athletes are better than others and that movie stars deserve more honor than ordinary mortals. This is because they have a kind of skill which is much admired even by those who do not possess it. But intellectual ability, so far from being admired by stupid boys, is positively and actively despised. . . .

—Bertrand Russell, in *Union College Review*

To Expand International Studies

► Johns Hopkins has received a grant of $3,000,000 from the Ford Foundation in support of a ten-year program to strengthen and expand its School of Advanced International Studies in Washington, D. C. The school's formal curricula deal with social, economic, and political trends in Europe, the Middle East, Far East, Southeast Asia, Latin America, and Africa. In addition to an educational program for graduate students, the school conducts mid-career training courses for technical-assistance executives and foreign service officers, etc.

'Unused' Scholarships a Myth

► Lloyd W. Cornell, Jr., of Brown University, calls the "unused" scholarship so often mentioned in women's magazines "the greatest myth of our time." Henry S. Coleman of Columbia said that at schools such as his "there is no such thing as an unused scholarship."

Today, according to the Providence (R. I.) *Sunday Journal*, "high quality" private college education wrings $2,500 from the student annually. In five years costs will probably rise to $3,000.

College Presidents Last 8.1 Years

► Contrary to popular belief, college presidents stay in office more than four years at one institution, according to William Selden, executive secretary of the National Commission of Accrediting. He found among NCA's 1,300 member institutions that the average president's term of office is 8.1 years, ranging from 5.8 years in Catholic institutions to 9.7 years in both private and public teachers colleges.

Colleges Respond to World Responsibility

► "Few people have any idea of the vigor and imagination with which the colleges and universities have responded to the challenges posed by the world responsibilities of the U. S.," according to John W. Gardner, president of the Carnegie Corporation.

The story is dramatically told in the first section of the Carnegie Corporation's annual report for 1959, "The American University in World Affairs."

Principal's Office

(With a Window onto a Hill)

The counter is a wailing wall
Where young eyes sometimes weep
For impudence, for insolence,
For holding learning cheap;
I give them homely homilies
On how we sow to reap.
(Heigh-ho, the chipmunk, scampering,
Takes findings home to keep.)

Some come to show a pouting lip
Or stormy, bitter eye;
They swear it's justice that they seek;
Injustice they defy!
They fill out forms in duplicate
While tempers droop and die.
(Heigh-ho, the blue-jay, fleering, shrieks
His maladjusted cry!)

Some come to plead a lame excuse
Or tell a tale of woe;
Some come, in truculence, to chide
The world of thus and so;
And, as I listen, well might I
Admit, "I know, I know!"
(Outside, the maple saplings, too,
Endure what winds may blow.)

—William J. Murphy
Minersville, Pennsylvania

S R BONDS

Dear Editor:

That editorial [Feb. KAPPAN] disturbs me. Perhaps whoever wrote it intended that it should disturb people. If so he was "successful," but I consider it the wrong kind of success.

To me the editorial is an *indictment* and *condemnation* of leadership. I don't think we accomplish constructive ends by employing the technique of condemnation, which is only a form of repudiation. Instead, I would applaud a constructive editorial telling how leadership could be more effective.

Please excuse me for writing this critical letter.—JOHN J. LEE, *distinguished professor* and *chairman*, Department of Special Education and Vocational Rehabilitation, Wayne State University, Detroit, Mich.

Announcing Publication of . . .

FIRST ANNUAL PHI DELTA KAPPA SYMPOSIUM ON EDUCATIONAL RESEARCH

This 128-page cloth-bound volume publishes the five papers and subsequent discussions comprising a two-day symposium on educational research sponsored jointly by the Phi Delta Kappa Research Corporation, Alpha Beta Campus Chapter of Phi Delta Kappa, and the University of Virginia. It is the first in a series expected to come from three symposia planned to consider different aspects of educational research. This volume is primarily concerned with the current stage of development of such research, its rationale, its underlying assumptions, its philosophy, and its relationship to research in other behavioral sciences. The chapters are:

I. A Survey of Educational Research at Selected Universities, *Nicholas Fattu*
II. Contributions of the Federal Government to Educational Research Methodology, *Herbert S. Conrad*
III. The Impact of Applied Problems on Educational Research, *Warren G. Findley*
IV. The Contribution of the Behavioral Sciences to Educational Research, *Ralph W. Tyler*
V. Philosophy in Educational Research, *Ernest Nagel*
VI. Symposium Discussions

Order now. Your copy will be mailed before the end of March.

Phi Delta Kappa International
Eighth & Union
Bloomington, Indiana

Price $2, postpaid
(Please enclose check or money order)

SYMPOSIUM PARTICIPANTS

Ralph Tyler, director, Center for Advanced Study in the Behavioral Sciences, Stanford University; Herbert S. Conrad, chief, Research and Statistics Service, U. S. Office of Education; Frank Banghart, director, Division of Educational Research, University of Virginia; Ralph Cherry, dean, College of Education, University of Virginia; Warren G. Findley, Department of Research and Pupil Personnel, Atlanta, Georgia, Public Schools; Palmer O. Johnson, head, Department of Statistics, University of Minnesota; Truman M. Pierce, dean, School of Education, Alabama Polytechnic Institute; Nicholas A. Fattu, director, Institute of Educational Research, Indiana University; Ernest Nagel, John Dewey Professor of Philosophy, Columbia University, and editor, Philosophy of Science; *Sam M. Lambert, director, Research Division, National Education Association.*